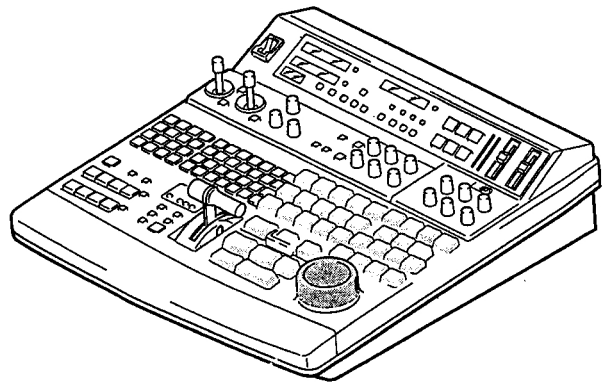
# FXE-100P

# SERVICE MANUAL

*AEP Model*
*UK Model*
*E Model*



## SPECIFICATIONS

### General

| | |
|---|---|
| Signal system | PAL |
| Power requirements | AEP model: 220 – 230 V AC, 50/60 Hz<br>UK model: 240 V AC, 50/60 Hz<br>E model: 120 – 220 – 240 V AC, 50/60 Hz |
| Power consumtption | Maximum 52 W |
| Operating temperature | 5°C to 40°C (41°F to 104°F) |
| Storage temperature | –20°C to +60°C (–4°F to 140°F) |
| Mass | Approximately 7.3 kg (16 lb 1 oz) |
| Dimensions (w/h/d) | 424 × 138.5 × 437.5 mm<br>(16 3/4 × 5 1/2 × 17 1/4 inches) |

### Editing controller functions

| | |
|---|---|
| CPU | 16 bit |
| Time counter | Internal time counter (× 3) |
| Time count display range | (hours:minutes:seconds:frames)<br>• Time code: 00:00:00:00 to 23:59:59:24<br>• CTL: ±9:59:59:24 |
| Edit modes | • Insert (channels: video, audio 1, audio 2)<br>• Assemble<br>• First edit<br>• Time code insert<br>• Split (audio split offset from video IN point)<br>• Dynamic Motion Control (DMC) |
| Edit reference signals | • CTL signal<br>• SMPTE/EBU time code (LTC)<br>• 8 mm time code |
| Editing precision | RS-422 interface: ±0 frames (time code)<br>±1 frame (CTL)<br>RS-232C interface: ±1 frame (time code) |
| Transition time range | 0 to 999 (unit: frames) |
| Pinch-on delay | Simultaneous measurement of pinch-on delay for up to three VCRs connected to RS-422/RS-232C connectors. Measurement data stored in memory. |
| EDL memory capacity | 99 edits |

### Control functions

| | |
|---|---|
| VCR interfaces | |
| RS-422 | RS-422 (D-sub 9-pin) × 3<br>PLAYER 1, PLAYER 2, RECORDER<br>Connectable VCRs:<br>Hi8: EVO-9850P/9800P<br>S-VHS: SVO-9620, SVP-9020<br>Betacam: UVW-1800P (recorder)<br>U-matic: VO-9800P/9850P |
| RS-232C | RS-232C (D-sub 9-pin) × 3<br>PLAYER 1, PLAYER 2, RECORDER<br>Connectable VCRs:<br>Hi8: EVO-9650P |
| VCR remote control functions | Playback, still playback, rewind, standby off, stop, jog control, shuttle control, record, eject, stop all VCRs |
| GPI interface | GPI OUT (BNC) × 2<br>GPI IN (BNC) |
| EDL interface | EDL IN/OUT (D-sub 9-pin) |

### Input connectors

| | |
|---|---|
| Video input | |
| S-video | S VIDEO INPUT (mini DIN 4-pin) × 4, unbalanced<br>PLAYER 1, PLAYER 2, AUX 1, RECORDER<br>• Y: 1.0 V p-p, 75 Ω, sync negative<br>• C: 0.3 V p-p, burst, 75 Ω<br>• Sync: 0.3 Vp-p |
| Composite video | VIDEO INPUT (BNC) × 4, unbalanced<br>PLAYER 1, PLAYER 2, AUX 1, RECORDER<br>• Video: 1.0 V p-p,75 Ω, sync negative<br>• Sync: 0.3 Vp-p<br>• Burst: 0.3 Vp-p |

– Continued on next page –

MICROFILM

VIDEO EDITING SYSTEM

SONY®

Audio input

| | |
|---|---|
| Stereo | AUDIO L/R INPUT (phono jack), 2 channels × 5<br>PLAYER 1 MAIN (2), SUB (2)<br>PLAYER 2 MAIN (2), SUB (2)<br>RECORDER (2)<br>AUX 1 (2)<br>AUX 2 (2)<br>Impedance selectable with 600 Ω termination switch.<br>Input level: –7.5 dBs [1] (input impedance 47k Ω or above, 600 Ω switch OFF)<br>+4 dBs [1] (input impedance 600 Ω, 600 Ω switch ON) |
| Microphone | MIC (monaural phone), unbalanced<br>• Input level: –60 dBs [1]<br>• Input impedance: 4.4 kΩ or above |

### Output connectors

Video ouput

| | |
|---|---|
| S-video | S VIDEO OUTPUT (mini DIN 4-pin) × 2, unbalanced<br>PGM 1, PGM 2<br>• Y: 1.0 V p-p, 75 Ω, sync negative<br>• C: 0.3 V p-p, burst, 75 Ω<br>• Sync: 0.3 Vp-p |
| Composite video | VIDEO OUTPUT (BNC) × 3, unbalanced<br>PGM 1, PGM 2, MONITOR<br>• Video: 1.0 V p-p,75 Ω, sync negative<br>• Sync: 0.3 Vp-p<br>• Burst: 0.3 Vp-p |
| Black burst | B.B OUT (BNC) × 4, unbalanced<br>• Sync: 0.3 V p-p, 75 Ω<br>• Burst: 0.3 V p-p, 75 Ω |
| Audio output (stereo) | AUDIO L/R OUTPUT (phono jack) × 6<br>PGM 1 (2), PGM 2 (2), MONITOR (2)<br>PGM 1, PGM 2 output level selectable with –7.5dB/+4dB switch |

1) 0 dBs = 0.775 Vrms

### Video characteristics

| | |
|---|---|
| Sampling rate | Y: 910 fH [1]<br>R–Y, B–Y: 1/4 × 910 fH |
| Quantizing | Y, R–Y, B–Y: 8-bit |
| Frequency | 0 to 5 MHz, +1dB/–4dB<br>53 dB or above |

### Accessories supplied

AC power cord (1)
Operating Instructions (1)
Handbook (1)

Design and specifications are subject to change without notice.

### Accessories not supplied

**Remote control cables**
- RS-422: RCC-5G/10G/30G (9-pin 5 m/10 m/30 m or approx. 16 f/33 f/98 f)
- RS-232C: SMF-3036C (9-pin/25-pin null modem cable)

**XLR 3-pin/phono jack cross cables**
- RK-5XLRM (male, 5 m or approx. 16 f)
- RK-5XLRF (female, 5 m or approx. 16 f)

1) 1 fH = 15.625 kHz

# SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer.

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and brides.

2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.

3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.

4. Look for parts which, throught functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replace-ment.

5. Check the B+ voltage to see it is at the values specified.

6. Flexible Circuit Board Repairing
   - Keep the temperature of the soldering iron around 270 ℃ during repairing.
   - Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
   - Be careful not to apply force on the conductor when soldering or unsoldering.

**WARNING FOR THE CUSTOMERS IN THE UNITED KINGDOM**
**THIS APPARATUS MUST BE EARTHED.**

**IMPORTANT**
The wires in this mains lead are coloured in accordance with the following code:

| | |
|---|---|
| Green-and-yellow: | Earth |
| Blue: | Neutral |
| Brown: | Live |

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:
The wire which is coloured green-and-yellow must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ or coloured green or green-and-yellow.
The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

**Note**
This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.

# TABLE OF CONTENTS


| Section | Title | Page |
|---|---|---|
| **1. GENERAL** | | |
| Chapter 1 | Outline | |
| | Features | 1-1 |
| | System Configuration Examples | 1-3 |
| | A-Roll and Cut Editing System | 1-3 |
| | A/B Roll Editing System (1) | 1-3 |
| | A/B Roll Editing System (2) | 1-4 |
| Chapter 2 | Location and Function of Parts | |
| | Control Panel | 1-5 |
| | Editing Control and VCR Manual Control Section | 1-5 |
| | Time Counter Displays | 1-8 |
| | LEARN Button, SCREEN Section and DIAL MENU Section | 1-9 |
| | EDIT PGM (Program) Section | 1-10 |
| | Video Switcher and Special Effects Control Section | 1-11 |
| | Audio Mixer Section | 1-16 |
| | Connector Panel | 1-17 |
| Chapter 3 | Preparations | |
| | Precautions | 1-20 |
| | Connections | 1-20 |
| | Player 1 and Player 2 VCR Connections | 1-20 |
| | Recorder VCR Connections | 1-21 |
| | Main Monitor and Program Monitor Connections | 1-21 |
| | Video Camera, CD Player and Microphone Connections | 1-22 |
| | Titler, Computer and Editing Controller Connections | 1-22 |
| | Switch Settings and System Setup | 1-23 |
| | About the Status Display | 1-24 |
| | VCR Preparations | 1-26 |
| Chapter 4 | Before Starting to Edit | |
| | Controlling the VCRs | 1-27 |
| | Selecting a VCR | 1-27 |
| | Controlling Tape Transport Manually | 1-27 |
| | Searching for a Scene With the Search Dial | 1-28 |
| | Controlling the Speed of Dynamic Tracking (DT) Playback | 1-29 |
| | Selecting Video and Audio Signals | 1-29 |
| | Default Input and Output Signals | 1-30 |
| | Selecting the Same Source for Video and Audio Inputs to a Bus | 1-30 |
| | Selecting Different Sources for Video and Audio Inputs to a Bus | 1-31 |
| | Monitoring Video and Audio Signals | 1-31 |
| | Adjusting Video and Audio Signals | 1-33 |
| | Adjusting Video Signals | 1-33 |
| | Adjusting Audio Levels | 1-34 |
| Chapter 5 | Editing Operations | |
| | Common Editing Procedures | 1-36 |
| | Selecting an Edit Mode | 1-36 |
| | Insert Mode | 1-36 |
| | Assemble Mode and First Edit Mode | 1-37 |
| | Selecting an Edit Type | 1-39 |
| | Cut Editing | 1-39 |
| | A-Roll Editing | 1-40 |
| | A/B Roll Editing | 1-40 |
| | Manual Effects and Sync Roll Editing | 1-41 |
| | Setting Edit Points | 1-41 |
| | Setting Edit Points | 1-41 |
| | Relation Between IN/OUT Points and Duration | 1-43 |
| | Checking, Cuing Up, Changing and Deleting Edit Points | 1-44 |
| | Selecting Special Effects | 1-47 |
| | Cut | 1-47 |
| | Dissolve | 1-48 |
| | Wipe | 1-49 |
| | Key | 1-55 |
| | Input Effects | 1-57 |
| | Setting the Transition Time | 1-64 |
| | Checking FROM and TO Sources | 1-65 |
| | Preview – The Rehearsal Before Edit Execution | 1-65 |
| | Executing the Edit | 1-66 |
| | Sync Grade During Previews and Edit Execution | 1-67 |
| | Automatic Execution of Multiple Edits – Auto Assembly | 1-68 |
| | Reviewing the Edit | 1-69 |
| Chapter 6 | Advanced Editing | |
| | On the Fly Editing With Two Players – Sync Roll Editing | 1-70 |
| | Editing With Manual Special Effects | 1-71 |
| | Auto Transition Effects | 1-72 |
| | Setting Independent Video and Audio IN Points – Split Editing | 1-73 |
| | Editing Variable-Speed Playback – DMC Editing | 1-75 |
| | Editing With Fade In and Fade Out | 1-77 |
| | Fade In | 1-77 |
| | Fade Out | 1-78 |
| | Using Color Backgrounds | 1-79 |
| | Slide In and Slide Out Using a Color Background | 1-79 |
| | Recording Time Code – Time Code Insert | 1-80 |

| Section | Title | Page |
|---|---|---|
| Chapter 7 | Managing Edit Data | |
| | About the EDL | 1-81 |
| | About Snapshots | 1-82 |
| | Using the EDL | 1-82 |
| | Registering an Edit in the EDL | 1-83 |
| | Recalling Edits From the EDL | 1-83 |
| | Revising and Deleting Edits | 1-84 |
| | Using Registered Edits in Automatic Editing | 1-85 |
| | Transferring Edits To and From External Equipment | 1-85 |
| Chapter 8 | Setup Menu | |
| | Setup Menù Item Table | 1-87 |
| | Using the Setup Menu | 1-87 |
| | Setup Menu Items | 1-88 |
| | System Configuration | 1-88 |
| | Switcher | 1-91 |
| | External Interface and EDL | 1-93 |
| | VCR Device Constants | 1-96 |
| Appendixes | | |
| | Error Messages | 1-98 |
| | In Case of Trouble | 1-99 |
| | Audio Signal Flow | 1-100 |
| | GPI Interface Effect Timing | 1-102 |
| | Wipe Patterns | 1-102 |

**2. DISASSEMBLY**

| | | |
|---|---|---|
| 1. | Removal of Top Cover Assy | 2-1 |
| 2. | Removal of Rear Panel | 2-2 |
| 3. | Removal of RE-25, RS-62, ED-41, MJ-65 Board and DC Motor | 2-2 |
| 4. | Removal of DV-19, VI-128, MM-27 Board | 2-3 |
| 5. | Removal of Power Block, FU-123 Board | 2-3 |
| 6. | Removal of Fader Assy | 2-4 |
| 7. | Removal of AM-32, KY-22 Board | 2-4 |
| 8. | Removal of Search Dial Block Assy | 2-5 |
| 9. | Removal of KS-15, CP-64, JS-25 Board | 2-5 |
| 10. | Removal of DP-46, AS-46 Board and Meter Unit, LED Level | 2-6 |
| 11. | Removal of Parts in Power Supply Block | 2-6 |

**3. DIAGRAMS**

| | | |
|---|---|---|
| 1. | Circuit Boards Location | 3-1 |
| 2. | Overall Block Diagram | 3-2 |
| 3. | Editor Block Diagram | 3-6 |
| 4. | Audio Block Diagram | 3-11 |
| 5. | Switcher (1) Block Diagram | 3-15 |
| 6. | Switcher (2) Block Diagram | 3-19 |
| 7. | Power Block Diagram | 3-22 |
| 8. | Detailed Block Diagram | 3-35 |

| Section | Title | Page |
|---|---|---|

**4. PRINTED WIRING BOARDS AND DIAGRAMS**

| | | |
|---|---|---|
| 1. | Frame Schematic Diagram | 4-1 |
| 2. | Printed Wiring Boards and Diagrams | |
| | • RE-25 (Video/Audio Input/Output) Board | 4-4 |
| | • DP-46 (Display) Board | 4-10 |
| | • CP-64 (Master CPU) Board | 4-17 |
| | • MM-27 (Frame Memory) Board | 4-26 |
| | • JS-25 (Joy Stick) Board | 4-39 |
| | • KY-22 (Key Edit) Board | 4-43 |
| | • RS-62 (RS-422/232C), ED-41 (EDL Input/Output) Boards | 4-50 |
| | • VI-126 (Video Input) Board | 4-57 |
| | • AM-32 (Audio), MJ-65 (MIC Jack), AS-46 (Volume) Boards | 4-65 |
| | • KS-15 (Key SEG) Board | 4-73 |
| | • DV-19 (Video) Board | 4-82 |
| | • FU-123 (Fuse) Board/Power Block | 4-112 |
| 3. | Semiconductor Lead Layouts | 4-119 |

**5. IC DESCRIPTION**

| | | |
|---|---|---|
| | • Main Microcomputer (DV-19 Board IC730 : M37702M4) | 5-1 |
| | • I/O Expander (DV-19 board IC711 : CXD1095Q) | 5-2 |
| | • DA Converter (DV-19 board IC704 : M62352) | 5-3 |
| | • DA Converter (DV-19 board IC705 : M62352) | 5-3 |
| | • DA Converter (DV-19 board IC706 : M62352) | 5-3 |
| | • DA Converter (DV-19 board IC707 : M62352) | 5-3 |
| | • Master Microcomputer (CP-64 board IC500 : M37732S4AFP) | 5-4 |
| | • CPG, PTC, PIU, ICU (CP-64 board IC518 : CXD1500Q) | 5-5 |
| | • OSD Microprocessor (CP-64 board IC501 : CXP80P116Q-1) | 5-6 |

**6. EXPLODED VIEWS**

| | | |
|---|---|---|
| 1. | Main Section | 6-1 |
| 2. | Keyboard Section | 6-2 |
| 3. | Search Dial Section | 6-3 |
| 4. | Fader Section | 6-4 |
| 5. | Button Section | 6-5 |

**7. ELECTRICAL PARTS LIST**

| | |
|---|---|
| AM-32 Board | 7-1 |
| AS-46 Board | 7-4 |
| CP-64 Board | 7-4 |
| DP-46 Board | 7-7 |
| DV-19 Board | 7-10 |
| ED-41 Board | 7-30 |
| FU-123 Board | 7-30 |
| JS-25 Board | 7-31 |
| KS-15 Board | 7-31 |

Section Title Page

KY-22 Board ..... 7-35
MJ-65 Board ..... 7-37
MM-27 Board ..... 7-37
RE-25 Board ..... 7-41
RS-62 Board ..... 7-45
VI-126 Board ..... 7-47
Power Block ..... 7-51
HARDWARE LIST ..... 7-54

## 8. ELECTRICAL ADJUSTMENTS

8-1. OUTLINE ..... 8-1
8-2. PREPARING THE MEASURING EQUIPMENT ... 8-1
8-2-1. Measuring Equipment and Tools Neededes ..... 8-1
8-2-2. Note on Measuring Equipment and Tools ..... 8-2
8-3. CONNECTING THE MEASURING EQUIPMENT ..... 8-2
8-4. SWITCHING THE INPUT SIGNAL ..... 8-3
8-5. MANUAL ADJUSTMENT ..... 8-3
8-5-1. DV-19 4fsc Adjustment ..... 8-3
8-5-2. MM27A Write APC Adjustment ..... 8-4
8-5-3. MM27B Write APC Adjustment ..... 8-4
8-5-4. MM27A Write AFC Adjustment ..... 8-4
8-5-5. MM27B Write AFC Adjustment ..... 8-4
8-6. STARTING UP THE EVR CONTROL PROGRAM ..... 8-4
8-7. EVR ADJUSTMENT ..... 8-6
8-7-1. Fader A DC Level Adjustment ..... 8-6
8-7-2. Fader B DC Level Adjustment ..... 8-6
8-7-3. Sync Level Adjustment ..... 8-6
8-7-4. Set Up Level Adjustment ..... 8-7
8-7-5. Read A Y Level Adjustment ..... 8-7
8-7-6. Read B Y Level Adjustment ..... 8-8
8-7-7. Write A Y Level Adjustment ..... 8-8
8-7-8. Write Y Level Balance Adjustment ..... 8-9
8-7-9. Y/C SEP A Y Level Adjustment ..... 8-9
8-7-10. Y/C SEP B Y Level Balance Adjustment .... 8-10
8-7-11. A HCENT Adjustment ..... 8-10
8-7-12. B HCENT Balance Adjustment ..... 8-11
8-7-13. Burst Level Adjustment ..... 8-11
8-7-14. A White Balance Adjustment ..... 8-12
8-7-15. B White Balance Adjustment ..... 8-12
8-7-16. A Read Chroma Adjustment ..... 8-13
8-7-17. B Read Chroma Adjustment ..... 8-13
8-7-18. Soft Border Level Adjustment ..... 8-14
8-7-19. Border Color Y/C Level Adjustment ..... 8-14
8-8. ADJUSTMENT PARTS ARRANGEMENT DIAGRAM ..... 8-16

# Features

The FXE-100/100P video editing system combines the functions of a video switcher, an audio mixer and a precision editing controller capable of executing A/B roll edits. Unlike conventional editing controllers, it does not require complicated connections to external equipment to achieve special effects such as mosaic and chroma-key insertion. All functions are available from an easy-to-use control panel. Connecting a single monitor allows you to view signals from each source at every stage of the editing process, from preview to program recording.

Following is a description of the principal features of this unit.

## Supports multiple signal formats

### Compatible with various VCRs

Three RS-422 and RS-232C interfaces permit simultaneous control of up to three VCRs. There are I/O connectors for composite video and S-video, making it possible to connect VCRs using a variety of signal formats, such as Hi8 and S-VHS.

### Two time code formats

In addition to CTL signals, SMPTE/EBU standard longitudinal time code (LTC) and 8 mm time code can be used to specify locations on source and master tapes.

## Editing functions

### Versatile editing modes

- **A/B roll:** Uses two player VCRs for transition effects such as mix and wipe.
- **Self A-roll:** Uses one player, but allows mixes and wipes using normal playbacks and playbacks with input effects.
- **A-roll:** Uses one player, but mixes and wipes can be carried out using freeze frame playback from the recorder.
- **Sync roll:** Two players are run in synchronization, allowing you to switch between their playback as often as desired.
- **Manual effects:** Manual control allows you to vary the speed and timing of special effects at will.
- **Split editing:** Audio tracks can be mixed up to a minute sooner or later than video tracks.
- **DMC (Dynamic Motion Control) editing:** Permits editing of noiseless, variable-speed playback when operating with players that support Dynamic Tracking® (DT).

### Precise edit points and transition times

Edit points can be set while viewing playback on the monitor or entered manually from the numeric keypad. Transition times for effects such as wipes and dissolves can also be set by dedicated buttons on the control panel or entered manually. Transition times range from 0 to 999 frames, for very precise effects.

## Edit decision list

### Auto assembly

Data for up to 99 edits can be saved in an internal edit decision list, allowing you to revise individual edits at any time for later assembly into a complete program.

### Control panel snapshots

The current settings of the buttons in the video switcher and special effects sections of the control panel can be saved in memory together with edits. The state of the control panel can be instantly restored at any time by recalling the snapshot data.

### Input and output of edit data

The unit is equipped with an RS-232C interface for input and output of edit decision list and snapshot data. The data can be transferred to and from personal computers or other external equipment.

## Video switcher and special effects

### Digital processing for high-quality video

Stable, high-quality video through 4-fsc (FXE-100) or 910 fH (FXE-100P) sampling of input video signals, 8-bit quantizing, and 4:1:1 digital processing in the signal processing section.

### Digital frame memory

Both of the unit's signal buses (A and B) are equipped with digital frame memory. An internal synchronizer controls output from frame memory, for precise synchronization of A-bus and B-bus signals. This makes it possible to use VCRs without time base correction (TBC) as input sources.

### Sophisticated digital effects

- **Mix:** In addition to normal dissolves, you can select mixes which apply effects such as mosaic, posterization and monochrome during the transition.
- **Wipe:** A total of 135 geometrical wipe patterns are available, along with wipe modes such as slide and scroll. Frequently used patterns may be assigned to the two user-programmable keys in the wipe pattern section. Wipe patterns can be given borders of a selected width and color.
- **Luminance key, chroma key:** Titles can be inserted into the video using camera output.

### Input effects

Digital effects such as freeze frame, multi-screen and strobe may be applied independently to input video on bus A and bus B. Many of the digital effects can be used in combination.





This section is extracted from FXE-100/FXE-100P instruction manual.

# Features

### Color correction
Color correction (white balance adjustment) can be carried out independently for A-bus and B-bus signals. Color correction parameters can be saved to memory and recalled when necessary.

### Fade in/fade out
Fade in and fade out are available for use with black and white backgrounds.

## Audio mixer

You can adjust the audio input level independently for each input signal, and adjust the level of audio output to the program recorder and monitor. You can also mix in audio from a microphone or auxiliary audio source for output as program audio.

## Input/output channels

### Video and audio input/output channels
As shown below, the unit features a rich variety of video and audio I/O channels.

Video input

| Signal source | Signal format | |
|---|---|---|
| | S-video | Composite video |
| Player 1 | 1 | 1 |
| Player 2 | 1 | 1 |
| Recorder | 1 | 1 |
| Auxiliary source 1 | 1 | 1 |
| Total | 4 | 4 |

Video output

| Output signal | Signal format | |
|---|---|---|
| | S-video | Composite video |
| Program signal 1 | 1 | 1 |
| Program signal 2 | 1 | 1 |
| Monitor signal | — | 1 |
| Total | 2 | 3 |

Audio input

| Signal source | Channels |
|---|---|
| Player 1 | 4 |
| Player 2 | 4 |
| Recorder | 2 |
| Auxiliary source 1 | 2 |
| Auxiliary source 2 | 2 |
| Microphone | 1 |
| Total | 15 |

Audio output

| Channels | Output signal |
|---|---|
| Program signal 1 | 2 |
| Program signal 2 | 2 |
| Monitor signal | 2 |
| Total | 6 |

Switches on the connector panel can be used to select input and output signal impedance to match the impedance of connected equipment.

### Black burst output
Signals from the internal black burst signal generator may be output from four output channels, to synchronize source equipment from this unit.

## Control functions

In addition to three RS-422 interfaces and three RS-232C interfaces, the unit supports two GPI interfaces, allowing you to output status pulses at edit points in order to control external equipment, and to input timing pulses in order to control this unit.

### Pinch-on delay measurement
Pinch-on delay (the time required for tape transport to start after a VCR receives a tape transport command) can be measured for up to three VCRs connected to this unit's RS-422 and RS-232C connectors. Measurement data is held in memory and used by the unit to adjust the timing of tape transport commands to the VCRs, for quick synchronization.

## System setup menu

The system setup menu is displayed on the main monitor. It allows you to select operating modes and signal formats, and to configure the unit for use with various types of external equipment. Selections are made by rotating the search dial.

## Optional accessories

The following cables are available for use with this unit.

### RS-422 remote control cable
RCC-5G/10G/30G (9-pin, 5m/10m/30m): Connect RS-422 connectors on this unit to VCR RS-422 connectors.

### RS-232C remote control cable
SMF-3036C null modem cable (9-pin/25-pin): Connect RS-232 connectors (D-sub 9-pin) and EDL IN/OUT connectors (D-sub 9-pin) on this unit to RS-232C connectors (D-sub 25-pin) on VCRs and external equipment.

### XLR 3-pin ↔ phono-jack cross cable
Connect audio I/O connectors (phono-jack) on this unit to XLR 3-pin connectors on external equipment.
- RK-5XLRM (male, 5m)
- RK-5XLRF (female, 5m)

1-2

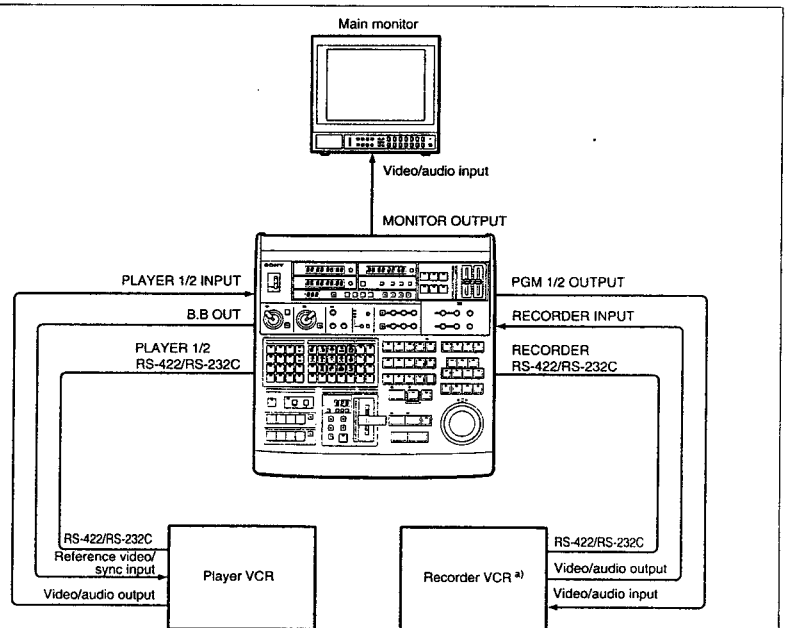
# System Configuration Examples

This section presents three examples of editing systems which can be configured around this unit.
In the illustrations, connections between system components are illustrated by single lines, even if both audio and video cables are required. Arrows indicate the direction of the connection.

*For more information, see "Connections" (page 3-3).*

## A-Roll and Cut Editing System

This example shows how to configure an editing system using only one player and one recorder.
In A-roll editing, freeze-frame playback from the recorder is read into bus B, allowing you to perform mix and wipe transitions with playback from the player VCR.

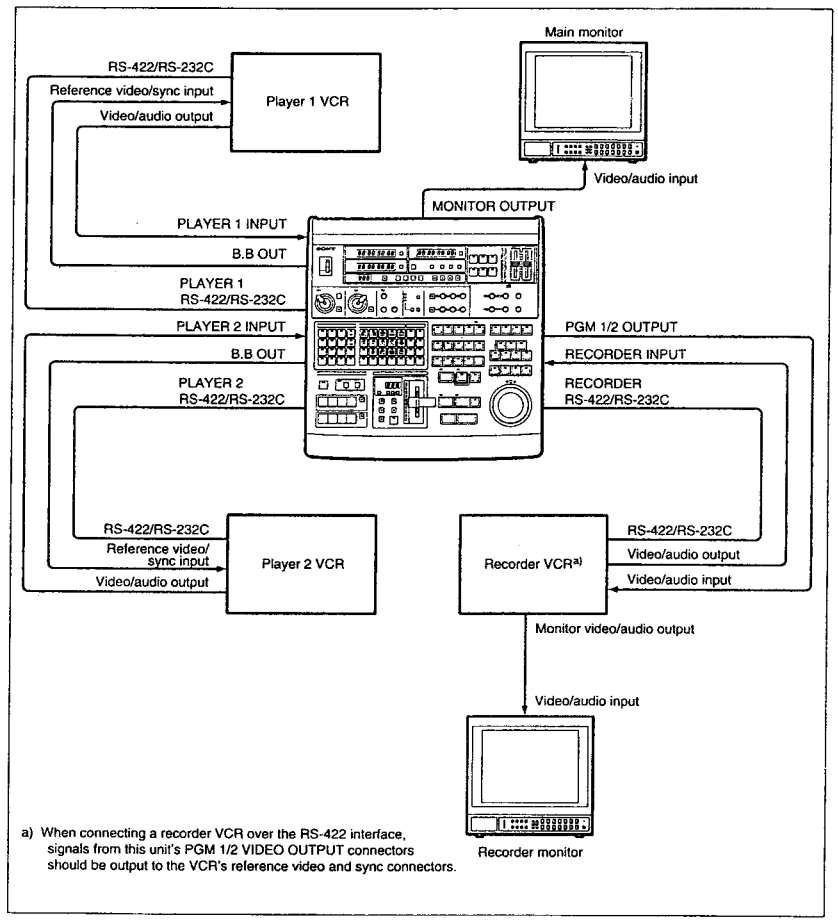



a) When connecting a recorder VCR over the RS-422 interface, signals from this unit's PGM 1/2 VIDEO OUTPUT connectors should be output to the VCR's reference video and sync connectors.

A-roll and cut editing system

## A/B Roll Editing System (1)

This example shows how to configure an A/B roll editing system for mix and wipe transitions between playback from two players.

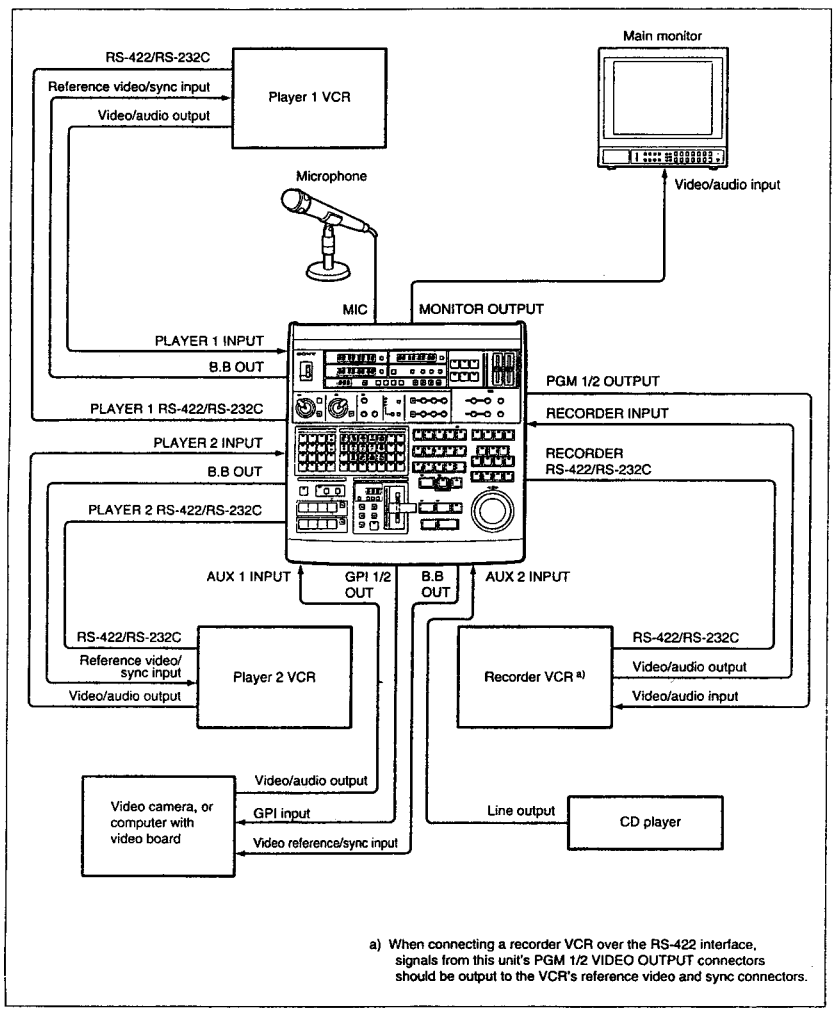



a) When connecting a recorder VCR over the RS-422 interface, signals from this unit's PGM 1/2 VIDEO OUTPUT connectors should be output to the VCR's reference video and sync connectors.

A/B roll editing system (1)

## A/B Roll Editing System (2)

This example shows how to configure an A/B roll editing system with equipment to insert titles, narration and background music.

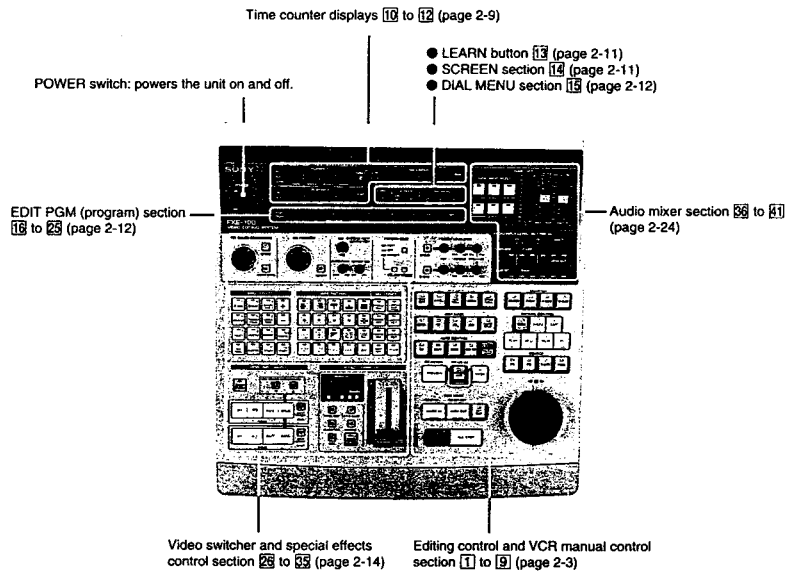



a) When connecting a recorder VCR over the RS-422 interface, signals from this unit's PGM 1/2 VIDEO OUTPUT connectors should be output to the VCR's reference video and sync connectors.

A/B roll editing system (2)

# Control Panel

The following figure shows the top-level grouping of controls on the control panel.

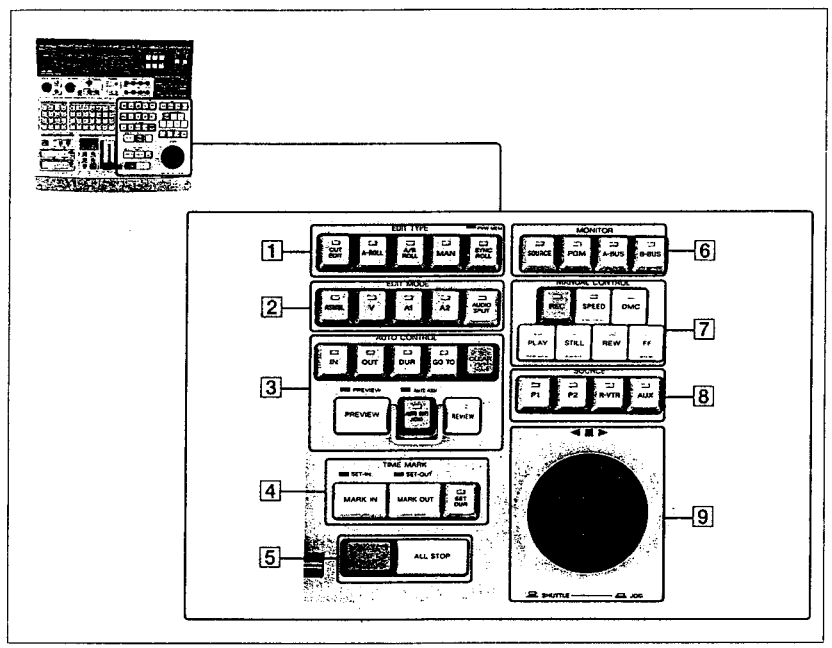



- Numbers enclosed in squares show functional sub-groups below the top-level groupings. For example, the audio mixer group contains six functional sub-groups, numbered 36 to 41.
- See the page numbers in parentheses for detailed descriptions of each control in the top-level groups.

Control panel

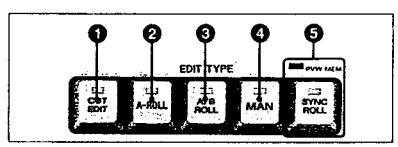
## Editing Control and VCR Manual Control Section

This section includes controls for selecting the edit mode, setting edit points, and manual VCR control.




Editing control and VCR manual control section

### 1 EDIT TYPE section




This section includes controls for selecting the type of edit to be performed for each of the connected sources.

**❶ CUT EDIT button**
Press this button, turning it on, to carry out a cut edit.

**❷ A-ROLL button**
Press this button, turning it on, to insert effects such as wipes and mixes when editing with one recorder and one player.

**❸ A/B ROLL button**
Press this button, turning it on, to carry out A/B roll editing using two players and a recorder.

**❹ MAN (manual) button**
Press this button, turning it on, for manual control of wipes and dissolves.

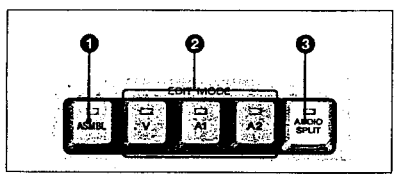
### ❺ SYNC ROLL (MEM CLR) button and PVW MEM indicator

**SYNC ROLL:** Press this button, turning it on, for sync roll editing (editing on the fly).

**MEM CLR (memory clear) (= SHIFT + SYNC ROLL):** After previewing an edit in sync roll mode, press this button to delete the data for that edit from memory.

**PVW MEM (preview memory) indicator:** In sync roll mode, this indicator lights when the data for an edit which has been previewed is present in memory.

## 2 EDIT MODE selection section




### ❶ ASMBL (1ST EDIT) button

**ASMBL (assemble):** To select assemble mode, press this button, turning it on. If any of the insert mode buttons ❷ are lit, press them until they are all flashing before pressing this button.

**1ST EDIT (= SHIFT + ASMBL):** To select first edit mode, press this button, it starts flashing. If any of the insert mode buttons ❷ are lit, press them until they are all flashing before pressing this button.

### ❷ Insert mode buttons (V, A1 and A2 (TC))

To select a signal to be used in insert mode, press the corresponding button, turning it on. More than one button may be lit.

**V button:** Video signal

**A1 button:** Audio channel 1

**A2 (TC) button:**

**A2:** Audio channel 2

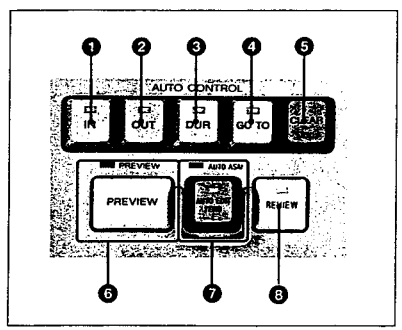
**TC (= SHIFT + A2):** Time code. Press this button so that it starts flashing to carry out time code insert editing.

### ❸ AUDIO SPLIT (SPLIT) button

**AUDIO SPLIT:** Press this button so that it starts flashing to split the audio and video IN points of the player or recorder.

**SPLIT (= SHIFT + AUDIO SPLIT):** In split editing, to check the player or recorder split offset, press this button, turning it on. The split offset will appear in the corresponding time counter display in seconds : frames format.

## 3 AUTO CONTROL section




This section includes the controls for setting, revising and confirming edit points, and for executing and reviewing automatic edits.

### ❶ IN (TRIM –) button

**IN:** Press this button to display the IN point of the VCR selected in the SOURCE section 8. The button lights, and the IN point is displayed in the corresponding time counter display 10, 11 or 12.

**TRIM – (= SHIFT + IN):** Press this button for fine adjustment of the time code value appearing in the time counter display of the selected VCR. Each time the button is pressed, the value is decremented by one frame.

### ❷ OUT (TRIM +) button

**OUT:** Press this button to display the OUT point of the VCR selected in the SOURCE section 8. The button lights, and the OUT point is displayed in the corresponding time counter display.

**TRIM + (= SHIFT + OUT):** Press this button for fine adjustment of the time code value appearing in the time counter display of the selected VCR. Each time the button is pressed, the value is incremented by one frame.

### ❸ DUR (LAST X) button

**DUR (duration):** Press this button to display the duration value for the selected VCR. The button lights, and the duration (hours:minutes:seconds:frames) appears in the corresponding time counter display.

**LAST X (= SHIFT + DUR):** Press this button to undo the effect of a correction to a time code value or to restore a time code value cleared by the CLEAR button.

### ❹ GO TO (LAST ED) button

**GO TO:** To cue up the IN point or OUT point on the selected VCR, press the IN button ❶ or OUT button ❷ as appropriate, followed by this button.

**LAST ED (edit) (= SHIFT + GO TO):** After previewing and revising an edit, and previewing the edit again, press this button to return to the state before the revisions.

### ❺ CLEAR (TOTAL) button

**CLEAR:** To delete the IN point, OUT point, or duration setting for the selected VCR, press the IN button ❶, OUT button ❷ or DUR button ❸ as appropriate, followed by this button.

Additionally, press this button to exit from numeric keypad mode.

*For more information about numeric keypad mode, see the descriptions of the TIME MARK buttons* 4.

**TOTAL (= SHIFT + CLEAR ):** Press this button to check the total duration of the edits carried out. The total is displayed in the RECORDER time counter display.

### ❻ PREVIEW button and PREVIEW indicator

After completing the settings for an edit, press this button to preview the edit before execution. The indicator lights and a preview begins, allowing you to check both video and audio on the monitor, from the preroll point to the postroll point.

### ❼ AUTO EDIT/END (AUTO ASM) button and AUTO ASM indicator

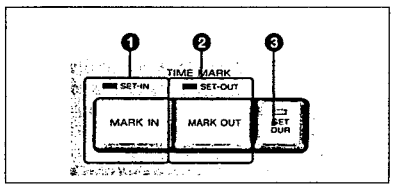
**AUTO EDIT/END:** Press this button, turning it on, to execute an automatic edit. Press it again after beginning an automatic edit to end the edit.

**AUTO ASM (assemble) (= SHIFT + AUTO EDIT/END):** Press this button to carry out continuous automatic recording. The AUTO ASM indicator lights, and continuous editing begins from an arbitrary edit stored in the edit decision list.

### ❽ REVIEW button

Press this button, turning it on, to review the results of an edit. The tape on the recorder is played back from the preroll point to the postroll point.

### 4 TIME MARK section




#### ❶ MARK IN (SET IN) button and SET IN indicator

**MARK IN:** Press this button to set an IN point while watching the playback of the VCR selected in the SOURCE section 8.

**SET IN (= SHIFT + MARK IN):** Press this button, turning the SET IN indicator on, to enter an IN point value using the numeric keypad 30.

#### ❷ MARK OUT (SET OUT) button and SET OUT indicator

**MARK OUT:** Press this button to set an OUT point while watching the playback of the VCR selected in the SOURCE section 8.

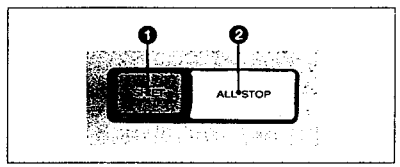
**SET OUT (= SHIFT + MARK OUT):** Press this button, turning the SET OUT indicator on, to enter an OUT point value using the numeric keypad 30.

#### ❸ SET DUR (SET TRANS) button

**SET DUR (duration):** Press this button to enter a duration value using the numeric keypad 30.

**SET TRANS (transition) (= SHIFT + SET DUR):** Press this button to enter an effect transition time using the numeric keypad 30.

### 5 SHIFT button and ALL STOP button




#### ❶ SHIFT button

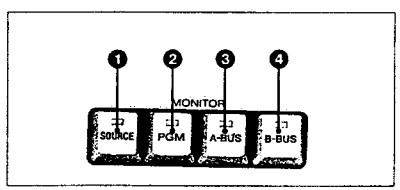
When this button is held down, each of the buttons in the editing control and VCR manual control section has the effect indicated on the front side of the button.

*For details see the descriptions of the individual buttons.*

#### ❷ ALL STOP button

Press this button to stop all of the VCRs connected to the PLAYER 1 and 2 RS-422/RS-232C connectors and the RECORDER RS-422/RS-232C connectors.

### 6 MONITOR section




The buttons in this section select signals for output to the main monitor, connected to the MONITOR OUTPUT connectors on the connector panel. When you press them, the buttons light to indicate the selected signals.

#### ❶ SOURCE button

Selects the source signals specified in the SOURCE section 8.

#### ❷ PGM (program) button

Selects the program signals. Editing and special effects signals are output to the main monitor as well as to the recorder and the program monitor connected to the PGM 1/2 OUTPUT connectors.

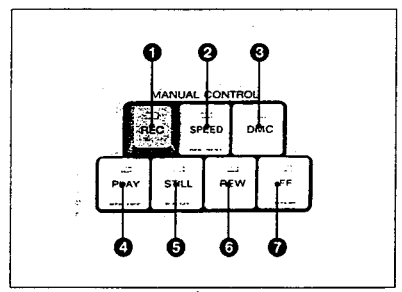
#### ❸ A-BUS button

Selects the audio and video on the A bus. Bus signals are output directly, without passing through frame memory.

#### ❹ B-BUS button

Selects the audio and video on the B bus. Bus signals are output directly, without passing through frame memory.

### 7 MANUAL CONTROL section




The buttons in this section provide manual control of the VCRs connected to the PLAYER 1 and 2 RS-422/RS-232C connectors and the RECORDER RS-422/RS-232C connectors.

#### ❶ REC (record) button

To record the output signals from the PGM 1/2 OUTPUT connectors without making any editing settings, hold down this button and press the PLAY button, turning both buttons on.

#### ❷ SPEED (MK-SPD) button

**SPEED:** In DMC (dynamic motion control) editing, press this button to check the initial playback speed set with the MK-SPD (= SHIFT + SPEED) button. The button lights, and the dynamic tracking playback speed is shown in the time counter display as a percentage of normal playback speed.

**MK-SPD (mark speed) (= SHIFT + SPEED):** Use this button to set the initial playback speed for DMC (dynamic motion control) editing.

#### ❸ DMC button

Press this button, turning it on, to carry out variable-speed playback on a player which supports dynamic tracking, or to control the playback speed during DMC editing.

#### ❹ PLAY (STB OFF) button

**PLAY:** To start playback, press this button, turning it on.

**STB (standby) OFF (= SHIFT + PLAY):** Press this button to switch the VCRs out of standby mode, so that the tapes do not remain wound on the head drums. Use this function to protect the tapes and heads when taking an appreciable break in the editing process.

#### ❺ STILL (EJECT) button

**STILL:** Press this button, turning it on, to get a still picture during playback.

**EJECT (= SHIFT + STILL ):** Press this button to eject the cassette from a VCR.

#### ❻ REW (rewind) button

Press this button, turning it on, to rewind the tape.

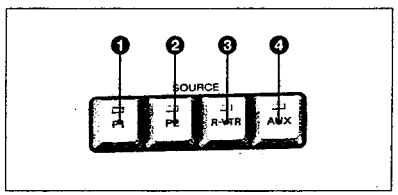
#### ❼ FF (STOP) button

**FF (fast forward):** Press this button, turning it on, to fast forward the tape.

**STOP (= SHIFT + FF):** Press this button to stop the tape.

### 8 SOURCE section

The buttons in this section select the VCRs controlled from this unit, the source affected by edit point operations, and the source signals which are sent to the MONITOR OUTPUT connectors. When you press them, the buttons light to indicate the selected source.



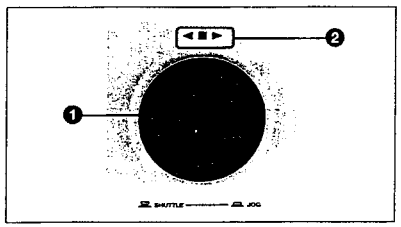

**❶ P1 (player 1) button**
- Selects player 1 for control from this unit.
- Selects player 1 as the source for the monitor signal.

**❷ P2 (player 2) button**
- Selects player 2 for control from this unit.
- Selects player 2 as the source for the monitor signal.

**❸ R-VTR (recorder) button**
- Selects the recorder for control from this unit.
- Selects the recorder as the source for the monitor signal.

**❹ AUX (auxiliary) button**
Selects auxiliary source 1 as the source for the monitor signal.

### 9 Search dial and playback direction indicators

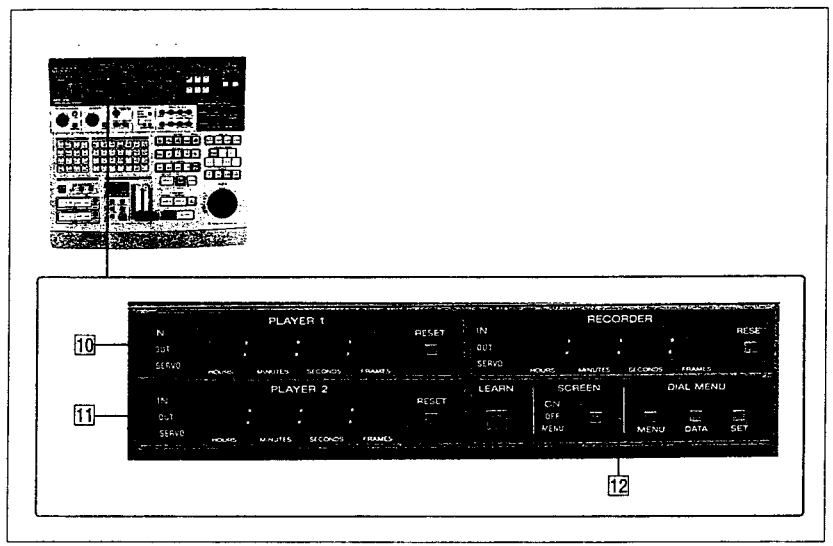



**❶ Search dial**
The search dial is used for two purposes.
- It acts as a combined shuttle and jog control, for controlling variable-speed playback and searching for edit points.
- It is used to select menu items and set parameters in the setup menu.

**❷ Playback direction indicators**
These indicators light to show the status or direction of playback.
□ : Lights during still playback.
▷: Lights during forward playback.
◁: Lights during reverse playback.

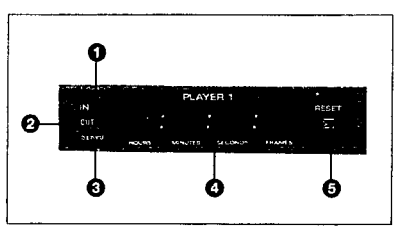
## Time Counter Displays

These display time code values for each of the VCRs: player 1, player 2 and the recorder.




Time counter display panels

### 10 PLAYER 1 time counter display panel




**❶ IN indicator**
Lights when an IN point appears in the PLAYER 1 time counter display ❹. If the player 1 IN point is not set, this indicator flashes and "-- -- -- --" appears in the time counter display.

**❷ OUT indicator**
Lights when an OUT point appears in the PLAYER 1 time counter display ❹. If the player 1 OUT point is not set, this indicator flashes and "-- -- -- --" appears in the time counter display.

**❸ SERVO indicator**
Lights when the drum and capstan servos of player 1 are locked.

**❹ PLAYER 1 time counter display**
Displays time codes showing the tape position, an edit point position, tape speed during variable-speed playback, and other information relating to player 1. Also displays error codes to signal misoperations or improper settings.

**❺ RESET button**
When the CTL count is displayed in the time counter display, pressing this button resets it to "0:00:00:00".

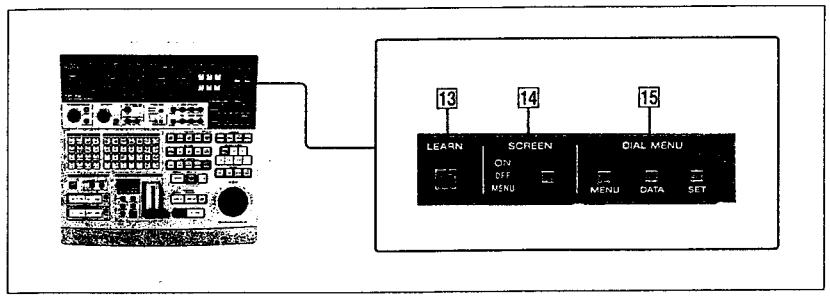
**11 PLAYER 2 time counter display panel**
This panel has functions for player 2 corresponding to those in the PLAYER 1 time counter display panel 10.

**12 RECORDER time counter display panel**
This panel has functions for the recorder corresponding to those in the PLAYER 1 time counter display panel 10.
It is also used to display the following data.
- The duration for the auxiliary source connected to the AUX 1 INPUT connector on the connector panel, or values input for auxiliary source 1 with the numeric keypad.
- The total duration for the edits carried out.





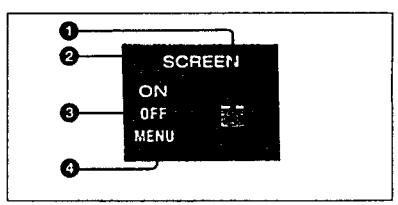
## LEARN Button, SCREEN Section and DIAL MENU Section




LEARN button, SCREEN section and DIAL MENU section

**13 LEARN button**
Pressing this button automatically measures, for each of the VCRs connected to the PLAYER 1 and 2 RS-422/RS-232C connectors and the RECORDER RS-422/RS-232C connectors, the time required for tape transport to begin after a tape transport command is received (the pinch-on delay). These values are held in memory and used by the system to control tape transport operations, for quick synchronization of the VCRs.

**14 SCREEN section**



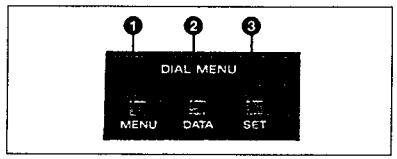

**❶ SCREEN button**
This button selects whether or not the monitor screen displays status information and setup menu items.
Pressing this button cycles through the three possibilities indicated by the ON ❷, OFF ❸, and MENU ❹ indicators.

**❷ ON indicator**
When this indicator is lit, the monitor display includes status information.

**❸ OFF indicator**
When this indicator is lit, the monitor does not display status or menu information.

**❹ MENU indicator**
When this indicator is lit, the monitor display includes setup menu information, and the setup menu can be controlled using the DIAL MENU buttons 15 and the jog-mode (depressed) search dial.

### 15 DIAL MENU section




The buttons in this section are used for menu operations.

*For details, see Chapter 8.*

### ❶ MENU button
To change the menu item displayed on the main monitor, hold this button down and rotate the search dial in jog mode.

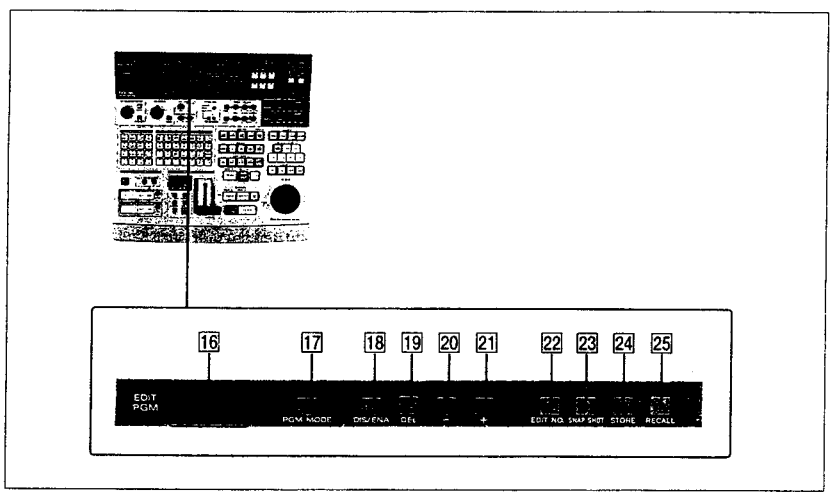
### ❷ DATA button
To change the setting of the currently displayed menu item, hold this button down and rotate the search dial in jog mode.

### ❸ SET button
Pressing this button confirms the flashing value on the screen as the new value of a setting, and saves it in memory.

## EDIT PGM (Program) Section

Use the buttons in this section to control the edit program.

*For details, see Chapter 7.*




EDIT PGM section

### 16 Edit number display
Displays the current edit number.

### 17 PGM (program) MODE button
Press this button, turning it on, to start the edit control program.

### 18 DIS/ENA (disable/enable) button
Press to skip an edit that will not be needed during auto assembly recording.

### 19 DEL (delete) button
To delete an unneeded edit from memory, select the edit, then press this button.

### 20 '–' button
Press this button to select the edit immediately before the current edit. Each press of the button decrements the number appearing in the edit number display 16. Pressing the button when 001 is displayed cycles round to edit number 099. Pressing this button together with the SHIFT button decrements the number in the edit number display by 10.

### 21 '+' button
Press this button to select the edit immediately after the current edit.
Pressing this button together with the SHIFT button increments the number in the edit number display by 10.

### 22 EDIT NO. button
Press this button, turning it on, to register an edit in memory, recall it, or transfer it to or from an external device. The edit will be registered automatically when you execute the edit.

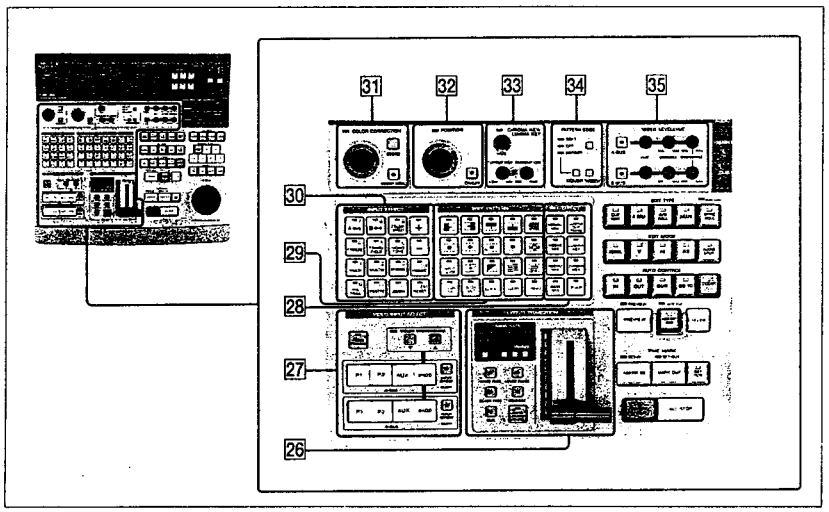
### 23 SNAPSHOT button
Pressing this button toggles it between lit and off. Lighting this button makes it possible to save a snapshot in memory, recall it, or transfer it to an external device. When it is lit, the control panel settings for effects will be saved to memory when you execute an edit.

### 24 STORE button
After setting edit data or snapshot data, or making changes to data, press this button to save the data in memory without executing an edit. The button lights and the edit number of the following edit appears in the edit number display 16.
However
- Edit data is not saved if the EDIT NO. button 22 is off.
- Snapshot data is not saved if the SNAPSHOT button 23 is off.

### 25 RECALL button
Press this button to recall edit or snapshot data. Use the '–' button 20 or '+' button 21 to select the edit, then press this button, turning it on. The control panel settings immediately change to the settings for the recalled edit.
However
- Edit data is not recalled if the EDIT NO. button 22 is off.
- Snapshot data is not recalled if the SNAPSHOT button 23 is off.

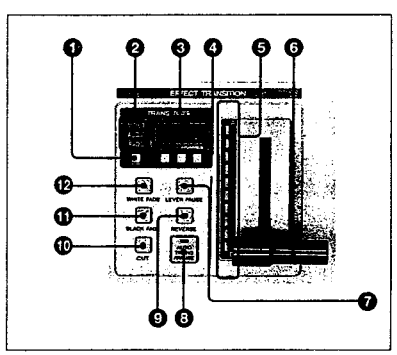
# Video Switcher and Special Effects Control Section

This block of controls provides selection and control of video input signals, and various special effects.




Video switcher and special effects control section

## 26 EFFECT TRANSITION section




Use the controls in this section to execute transitions, and set the transition time.

### ❶ VIDEO/AUDIO/FADE button

Press this button to toggle the VIDEO, AUDIO, and FADE indicators on and off.

- If the AUDIO SPLIT button in the EDIT MODE section 2 is flashing (that is, if you are conducting a split edit), pressing this button lights one of the VIDEO, AUDIO, and FADE indicators, turning the others off.
- If the AUDIO SPLIT button is off, pressing this button toggles the VIDEO and AUDIO indicators together, turning the FADE indicator on or off.

### ❷ VIDEO, AUDIO, and FADE indicators

Press the VIDEO/AUDIO/FADE button to toggle these indicators on and off.

**VIDEO/AUDIO:** If you perform an operation which sets the transition time when both of these indicators are lit, the same transition time is set for both video and audio. Transition times for video only or audio only can be set only when the AUDIO SPLIT button in the EDIT MODE section is flashing.

**FADE:** When this indicator is lit, an effect transition time can be set for fade in/fade out.

**Note**

When the VIDEO and AUDIO indicators are both lit, independent transition times cannot be set for video and audio.

### ❸ TRANS RATE display

Displays the transition time in frames, as set by the three TRANS RATE buttons ❹ below.

### ❹ TRANS RATE buttons

Use these three buttons to set the transition time in frames (range: 0 to 999 frames).
Pressing one of these buttons increments the corresponding digit of the TRANS RATE display. Pressing it while holding down the SHIFT button 5 decrements the value.
The factory default setting for the transition time is 30 frames (FXE-100) or 25 frames (FXE-100P).

### ❺ Transition indicators

These show the progress of a transition. As the transition proceeds, progressively more of the indicators light. For example, when a transition from bus A to bus B is completed, only one indicator at the B-bus end is lit. When more than one indicator is lit, the video output is a combination of A-bus and B-bus signals.

### ❻ Fader lever

Use for manual control of a wipe or dissolve. The transition begins when you start to move the lever from one extremity, and ends when the lever reaches the opposite position. While the lever is in an intermediate position, the output is a combination of A-bus and B-bus signals.

The fader lever is disabled when the AUTO TRANS/PAUSE button ❽ is lit.

### ❼ LEVER PAUSE button

In auto transition mode, press this button to pause a wipe or dissolve at the position of the fader lever. The button lights. When the transition reaches the state represented by the position of the lever, this button begins to flash and the transition pauses. To continue the transition, either press the AUTO TRANS/PAUSE button ❽ or move the fader lever. Moving the fader lever takes the unit out of auto transition mode and puts it into manual transition mode.

### ❽ AUTO TRANS (transition)/PAUSE button

Pressing this button, turning it on, then pressing it once more executes an automatic transition using the transition time specified for a wipe or dissolve.
If you press this button while an auto transition is in progress, the transition is paused, and the button changes from lit to flashing. Pressing it again resumes the transition, and the button lights again. If you resume the transition by moving the fader lever, the unit leaves auto transition mode and enters manual transition mode.

### ❾ REVERSE button

When a wipe, luminance key or luminance clip transition is being used, pressing this button provides one of the following effects.

- For a wipe, the direction of movement of the wipe pattern is reversed.
- When the luminance key is selected, portions of the video outside of the specified luminance range are removed, instead of portions inside the range.
- For a luminance clip transition, the keying sequence from dim portions to bright portions is reversed, to key from bright portions to dim portions.

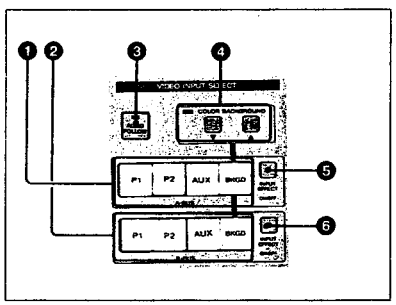
### ❿ CUT button

Press this button, turning it on, to switch instantaneously between A-bus video and B-bus video.

### ⓫ BLACK FADE button
Press this button, turning it on, to fade in from black, or to fade out to black.

### ⓬ WHITE FADE button
Press this button, turning it on, to fade in from white, or to fade out to white.

## 27 VIDEO INPUT SELECT section




### ❶ A-BUS video input selection buttons
To select a video source for bus A, press one of these buttons, lighting it either red or orange. When the button lights red, it means that the corresponding video signal is currently being output from the PGM 1/2 OUTPUT connectors. A button lit orange indicates that the source is selected, but is not currently being output. If the button is flashing, it means that there is no video input for the corresponding input connector (the monitor shows a grey background).
The buttons select sources as follows.

**P1 button:** Player 1 (the VCR connected to the PLAYER 1 INPUT connectors)
**P2 button:** Player 2 (the VCR connected to the PLAYER 2 INPUT connectors)
**AUX button:** Auxiliary source 1 (the video/audio device connected to the AUX 1 INPUT connectors)

**BKGD button:** The output from the internal color background generator. This button takes precedence over the other A-bus video input selection buttons. When this button is lit red, even if another button is also lit red, the output from the PGM 1/2 OUTPUT connector is the color background. To select one of the other buttons, press the BKGD button, turning it off.

### ❷ B-BUS video input selection buttons
Use these buttons to select a video source for bus B. However, during execution of an edit while the A-ROLL button in the EDIT TYPE section 1 is lit, these buttons go out and stay off even if pressed.

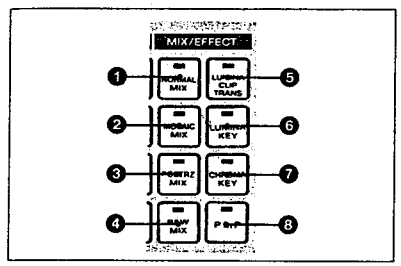
### ❸ AUDIO FOLLOW button
When this button is lit, selecting a video source as input to a bus automatically selects the same source for the audio input. In this case, when you carry out a wipe or dissolve, the audio signals change together with the video signals. To select the audio source independently from the video source, press this button, turning it off, then select the audio source using the appropriate button in the AUDIO INPUT SELECT section 36.

### ❹ Background color selection buttons (▼/▲) and COLOR BACKGROUND indicator
When the BKGD button in the video input selection buttons ❶ and ❷ for either of the buses is lit, the COLOR BACKGROUND indicator also lights. In this state, pressing the ▼ or ▲ button cycles through the available selection of 25 background colors for bus A or bus B.

### ❺ A-BUS INPUT EFFECT ON/OFF button
When this button is lit, the effect selected in the INPUT EFFECT section 30 is applied to bus A.

### ❻ B-BUS INPUT EFFECT ON/OFF button
When this button is lit, the effect selected in the INPUT EFFECT section 30 is applied to bus B.

## 28 MIX/EFFECT selection section




These buttons select the type of mix or key effect used to combine the video signals on the A and B buses. To make the selection, press the desired button, turning it on.

*For details, see "Dissolve" (page 5-26) and "Key" (page 5-41).*

### ❶ NORMAL MIX button
Provides a simple mix of the two signals, so that a transition from bus A to bus B is a dissolve.

### ❷ MOSAIC MIX button
Provides a dissolve in which the video becomes a progressively coarser mosaic to the mid-point of the transition, then returns progressively to normal.

### ❸ POSTRZ (posterization) MIX button
Provides a dissolve which simplifies the luminance of the video signal. The luminance cycles through the steps 16→8→4→8→16.

### ❹ B&W (black and white) MIX button
Provides a dissolve in which the video is changed progressively to monochrome to the mid-point of the transition, then returns progressively to normal.

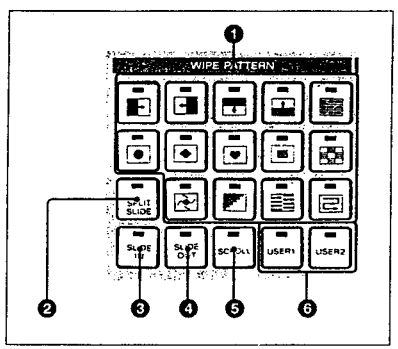
### ❺ LUMINA (luminance) CLIP TRANS (transition) button
Provides one type of luminance key. As the transition proceeds, portions of the old video of progressively increasing brightness are replaced by the new video.

### ❻ LUMINA (luminance) KEY button
Portions of B-bus video whose luminance (brightness) is equal to or higher than a specified reference level are replaced by A-bus video. The reference luminance level is specified using the controls in the CHROMA KEY/LUMINA KEY section 33.

### ❼ CHROMA KEY button
Portions of B-bus video of a specified hue are replaced by A-bus video. The reference hue is specified using the controls in the CHROMA KEY/LUMINA KEY section 33.

### ❽ P IN P (picture-in-picture) button
A small copy of the B-bus video is inserted in the A-bus video. The position of the insert picture can be controlled by the joystick in the POSITION section 32.

## 29 WIPE PATTERN selection section




The buttons in this section select the pattern to be used in a wipe effect. To make the selection, press the desired button, turning it on.

*For details, see "Wipe" (page 5-29).*

1-12

The following descriptions of buttons ❶ to ❺ assume you are making the transition from bus A to bus B.

### ❶ Buttons with symbols and arrows

- The symbol on the button represents the pattern with which the two video images are combined at an intermediate stage of the transition. The white portion corresponds to A-bus video, and the blue portion to B-bus video.
- The arrows show the direction of the wipe pattern.
- For the button [8] the video on the B bus rotates clockwise as the wipe proceeds.

### ❷ SPLIT SLIDE button

The B-bus video slides in over A-bus video in the form of stripes. When the stripes reach the far side of the screen, the remaining stripes of A-bus video begin to slide off, finally leaving only B-bus video.
The vertical or horizontal direction of the B-bus video slide can be selected with the [8] [8] [8] [8] wipe buttons.

### ❸ SLIDE IN button

The B-bus video slides in over A-bus video. The vertical or horizontal direction of the B-bus video slide can be selected with the [8] [8] [8] [8] wipe buttons. If the [8] and [8] buttons are both lit, the slide direction changes to a slant.

### ❹ SLIDE OUT button

The A-bus video slides out, revealing the B-bus video. The vertical or horizontal direction of the A-bus video slide can be selected with the [8] [8] [8] [8] wipe buttons.

### ❺ SCROLL button

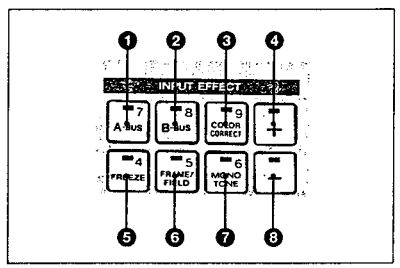
The B-bus video slides in, as A-bus video slides out. The vertical or horizontal direction can be selected with the [8] [8] [8] [8] wipe buttons.

### ❻ USER 1 and USER 2 buttons

Frequently used wipe patterns and settings can be assigned to these buttons, using item 201 WIPE PATTERN in the setup menu.

*For details, see Chapter 8.*

## [30] INPUT EFFECT section (numeric keypad)




The buttons in this section select the digital effect applied to a bus when one of the A-BUS/B-BUS INPUT EFFECT ON/OFF buttons in the VIDEO INPUT SELECT section [27] is lit. You can press more than one of these buttons for combination effects.
The buttons of the INPUT EFFECT section [30] also double as a numeric keypad for entering time code and duration values.

### ❶ A-BUS button / 7 key

Press this button, turning it on, to apply the input effect to bus A.

### ❷ B-BUS button / 8 key

Press this button, turning it on, to apply the input effect to bus B.

**Note**

When setup menu item 306 INPUT EFFECT SELECT is set to ON, the input effect is applied automatically to the bus selected by the fader lever position.

*For details, see Chapter 8.*

### ❸ COLOR CORRECT button / 9 key

- Press this button, turning it on, to enable the controls in the COLOR CORRECTION section [31].
- To return color correction to its original state, either press this button once more, turning it off, or press the RESET button ⓰, turning it on.

### ❹ '+' key

This button is used together with other buttons in the INPUT EFFECT section to control effect selection.

*For details, see the descriptions of the other buttons in this section.*

### ❺ FREEZE button / 4 key

- To freeze the video, press this button, turning it on.
- To return to normal video, either press this button once more, turning it off, or press the RESET button ⓰, turning it on.

### ❻ FRAME/FIELD button / 5 key

- When the FREEZE button ❺ is lit, this button lights automatically. When it is lit, the freeze operation captures a single field. Press this button, turning it off, to capture a whole frame (two fields) instead. A single-field freeze capture may result in less blurring if there is rapid motion in the picture.
- This button also lights automatically when the MULTI ❾, MOSAIC ⓬ and ZOOM ⓯ buttons are lit. But in these cases pressing it has no effect.

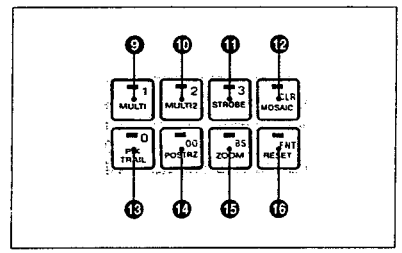
### ❼ MONOTONE button / 6 key

- Press this button, turning it on, to obtain a monotone (monochrome) picture. When this button is lit, pressing the COLOR CORRECT button ❸, turning it on, allows you to use the COLOR CORRECTION section [31] to adjust the monochrome tint, and save and recall it in memory.
- To return to the original color state, either press this button once more, turning it off, or press the RESET button ⓰, turning it on.

### ❽ '–' key

This button is used together with other buttons in the INPUT EFFECT section to control effect selection.

*For details, see the descriptions of the other buttons in this section.*




### ❾ MULTI button / 1 key

When you press this button, turning it on, the screen is split into a 3 by 3 grid, and a reduced copy of the video appears in the top left corner. Unless you applied this effect to a freeze frame, the video continues to move. You can now paste successive copies of freeze frames in the nine boxes, as follows. When you press the '+' key, the picture in the top left corner freezes, and the current video is shown in the top center box. Press it again, and this box freezes, and the current video moves to the upper right corner, and so on.
The '–' key has the same effect, except that the boxes are pasted in the reverse direction.

*For details, see "Multiple screens" (page 5-46).*

To return to normal video, either press this button once more, turning it off, or press the RESET button ⓰, turning it on.

### ❿ MULTI 2 button / 2 key

This button provides the same effect as the MULTI button ❾, except that the order in which the nine boxes are pasted is different.

*For details, see "Multiple screens" (page 5-46).*

To return to normal video, either press this button once more, turning it off, or press the RESET button ⓰, turning it on.

### ⓫ STROBE button / 3 key
Pressing this button, turning it on, freezes the video at a specified frame interval, giving a stroboscopic effect. You can adjust the frame interval using the '+' key ❹ and '–' key ❸.
To return to normal video, either press this button once more, turning it off, or press the RESET button ⓰, turning it on.

### ⓬ MOSAIC button / CLR (clear) key
- Pressing this button, turning it on, applies a mosaic grid to the picture. You can adjust the coarseness of the mosaic using the '+' key ❹ and '–' key ❸.
  To return to normal video, either press this button once more, turning it off, or press the RESET button ⓰, turning it on.
- In numeric keypad mode, press this key before pressing the ENT key ⓮ to clear a numerical value.

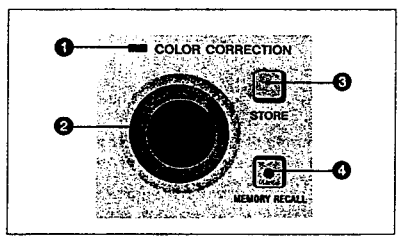
### ⓭ PIX TRAIL button / 0 key
Pressing this button, turning it on, produces an image trail of a certain length.
To return to normal video, either press this button once more, turning it off, or press the RESET button ⓰, turning it on.

### ⓮ POSTRZ (posterization) button / 00 key
- Pressing this button, turning it on, breaks the luminance down into a limited number of levels, producing a poster effect. You can select 16, 8 or 4 levels.
  To return to normal video, either press this button once more, turning it off, or press the RESET button ⓰, turning it on.
- Pressing this key in numeric keypad mode enters "00".

### ⓯ ZOOM button / BS (backspace) key
- Pressing this button, turning it on, provides a zoom function. Press the '+' key to expand the picture, and the '–' key to contract it.
  To return to normal video, either press this button once more, turning it off, or press the RESET button ⓰, turning it on.
- In numeric keypad mode, press this key before pressing the ENT key ⓮ to clear the most recently entered digit.

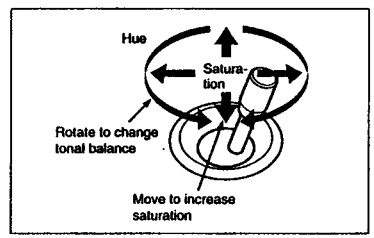
### ⓰ RESET button / ENT (enter) key
- When you press any of the other buttons in the INPUT EFFECT section, except for the A-BUS button ❶ and B-BUS button ❷, this button automatically goes off.
  Pressing this button, turning it on, turns off all the other buttons in the INPUT EFFECT section, and cancels their effect selections.
- In numeric keypad mode, pressing this key confirms the value entered and takes the unit out of numeric keypad mode.

## 31 COLOR CORRECTION section




### ❶ COLOR CORRECTION indicator
When you press the COLOR CORRECT button in the INPUT EFFECT section 30, turning it on, this indicator lights to inform you that it is possible to carry out color correction. Color correction is applied to the bus selected with the A-BUS and B-BUS buttons in the INPUT EFFECT section.

### ❷ COLOR CORRECTION joystick
When the COLOR CORRECTION indicator ❶ is lit, moving this joystick carries out the color correction. Rotating the stick cycles through all possible hues. Moving it further from the center position increases the color saturation.




Using the COLOR CORRECTION joystick

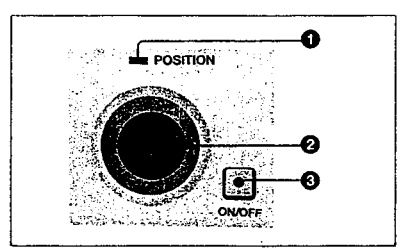
The correction range can be specified using item 205 COLOR CORRECTION ADJUSTMENT WIDTH in the setup menu.

*For details, see Chapter 8.*

### ❸ STORE button
To save the color settings selected by the COLOR CORRECTION joystick, hold down this button and press the MEMORY/RECALL button ❹.

### ❹ MEMORY/RECALL button
To save the color settings selected by the COLOR CORRECTION joystick, press this button while holding down the STORE button ❸. To recall the settings held in memory, press this button alone.

## 32 POSITION section

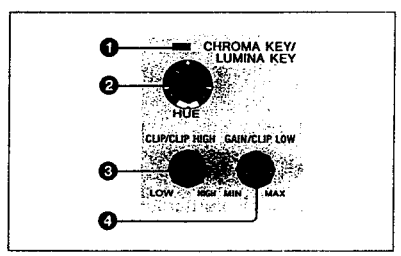



### ❶ POSITION indicator
Selecting a wipe pattern whose center is changeable or turning on the P IN P (picture-in-picture) button, automatically turns on this indicator, and enables the POSITION ON/OFF button ❸.

### ❷ POSITION joystick
When the POSITION ON/OFF button ❸ is lit, moving this joystick adjusts the position of some of the wipe patterns and the position of the insert picture in picture-in-picture mode (selected by pressing the P IN P button in the MIX/EFFECT section 28). However, the video quality of the insert picture in the picture-in-picture effect may deteriorate slightly when the insert is moved with the joystick.

### ❸ POSITION ON/OFF button
If you have selected a movable wipe pattern, pressing this button, turning it on, enables the POSITION joystick ❷.

## 33 CHROMA KEY/LUMINA KEY section




### ❶ CHROMA KEY/LUMINA (luminance) KEY indicator
When you press the LUMINA KEY button or the CHROMA KEY button in the MIX/EFFECT section 28, this indicator lights to inform you that the following three knobs are enabled.

### ❷ HUE knob
After pressing the CHROMA KEY button, turning it on, rotate this knob to select the chroma key hue.

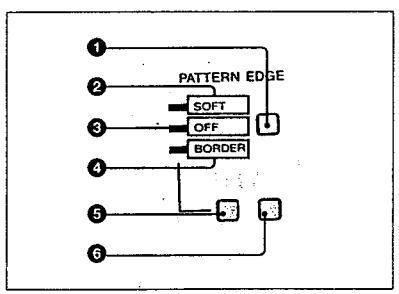
### ❸ CLIP/CLIP HIGH knob

- After pressing the CHROMA KEY button, turning it on, rotate this knob to select the chroma key saturation.
- After pressing the LUMINA KEY button, turning it on, rotate this knob to specify the reference level of brightness for the key. Use this control for relatively bright portions of the video.

### ❹ GAIN/CLIP LOW knob

- After pressing the CHROMA KEY button, turning it on, rotate this knob to adjust the gain level of the key source signal, that is the signal used to fill the background, in this system on bus A.
- After pressing the LUMINA KEY button, turning it on, rotate this knob to specify the reference level of brightness for the key. Use this control for relatively dark portions of the video.

## 34 PATTERN EDGE section




### ❶ PATTERN EDGE button

Pressing this button cycles through the SOFT indicator ❷, the OFF indicator ❸, and the BORDER indicator ❹, lighting one and turning the others off.

### ❷ SOFT indicator

When this indicator is on, the edges of certain wipe patterns become softer, for a fuzzy effect.

### ❸ OFF indicator

When this indicator is on, the wipe patterns have sharp edges.

### ❹ BORDER indicator

When this indicator is on, certain of the wipe patterns are given colored borders. You can adjust the border color with the COLOR button ❺, and the width with the WIDTH button ❻.

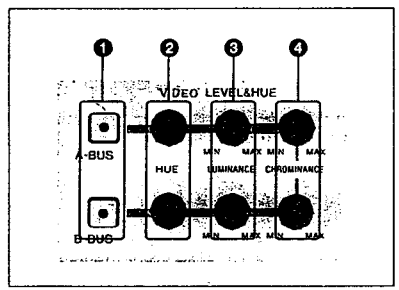
### ❺ COLOR button

When the BORDER indicator ❹ is lit, pressing this button cycles through the available selection of 15 border colors.

### ❻ WIDTH button

When the BORDER ❹ indicator is lit, pressing this button adjusts the width of the border in three steps.

## 35 VIDEO LEVEL & HUE section (FXE-100) VIDEO LEVEL & CHROMA PHASE section (FXE-100P)




### ❶ A-BUS/B-BUS buttons

Press the A-BUS button, turning it on, to make the adjustment for the A bus, and the B-BUS button, turning it on, to make the adjustment for the B bus. Press the button once more, turning it off, to return the unit to the factory default state.

### ❷ HUE knob (FXE-100)

Turn this knob to adjust the hue.

### CHROMA PHASE knob (FXE-100P)

Turn this knob to adjust the subcarrier phase of the chrominance signal.

### ❸ LUMINANCE knob

Turn this knob to adjust the luminance (brightness).

### ❹ CHROMINANCE knob

Turn this knob to adjust the saturation.

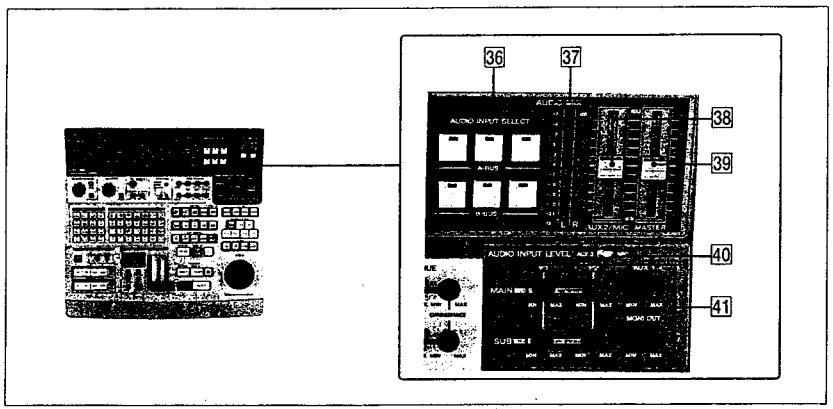
**Note**

The adjustment range for the HUE (FXE-100) or CHROMA PHASE (FXE-100P), LUMINANCE and CHROMINANCE knobs can be set in two steps using setup menu item 206 VIDEO LEVEL & HUE ADJUSTMENT WIDTH (FXE-100) or VIDEO LEVEL & CHROMA PHASE ADJUSTMENT WIDTH (FXE-100P).

*For details, see Chapter 8.*

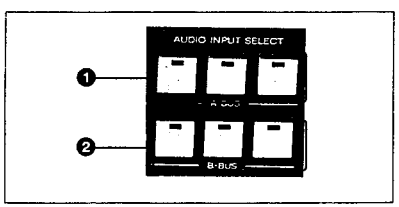
# Audio Mixer Section

This block of controls provides selection and control of audio input signals.




Audio Mixer Section

### 36 AUDIO INPUT SELECT section




**1 A-BUS audio source selection buttons**
To select an audio source for bus A, independent of the A-BUS video source selected in the VIDEO INPUT SELECT section 27, extinguish the AUDIO FOLLOW button in the VIDEO INPUT SELECT section, then press one of these buttons, lighting it.

The buttons select audio sources as follows.

**P1 button:** Player 1 (the VCR connected to the PLAYER 1 AUDIO L/R INPUT connectors)

**P2 button:** Player 2 (the VCR connected to the PLAYER 2 AUDIO L/R INPUT connectors)

**AUX 1 button:** Auxiliary source 1 (video/audio device connected to the AUX 1 AUDIO L/R INPUT connectors)

When the AUDIO FOLLOW button in the VIDEO INPUT SELECT section is lit, the audio from the source selected by the video input selection button (other than the BKGD button) is automatically selected as the audio source for bus A.

**2 B-BUS audio source selection buttons**
Use these buttons to select an audio source for bus B.

### 37 Audio level meters
These meters show the audio levels of left and right channels of the audio output.

### 38 AUX (auxiliary) 2/MIC (microphone) fader
This fader controls the AUX 2 source or microphone audio mixing level. The AUX 2/MIC switch 40 determines which level is controlled. The further up the fader is, the higher the audio level.

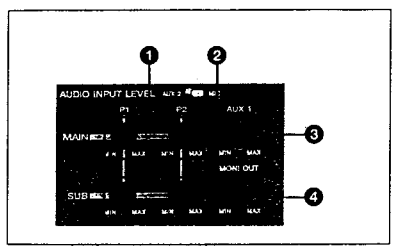
### 39 MASTER fader
This fader controls the level of the audio output from the PGM 1/2 OUTPUT connectors. The further up the fader is, the higher the audio level. When the PGM button in the MONITOR section 8 is lit, moving this fader also controls the audio level of output from the MONITOR OUTPUT connector.

### 40 AUX 2/MIC switch
This switch selects the audio level adjusted by the AUX 2/MIC fader 38.

**AUX 2:** Audio input to the AUX 2 AUDIO L/R connectors on the connector panel

**MIC:** Audio input to the MIC connector on the connector panel

### 41 AUDIO INPUT LEVEL section




**1 P1 MAIN and P2 MAIN knobs**
These knobs adjust the audio levels input to the PLAYER 1 and PLAYER 2 MAIN AUDIO L/R INPUT connectors.

**2 P1 SUB and P2 SUB knobs**
These knobs adjust the audio levels input to the PLAYER 1 and PLAYER 2 SUB AUDIO L/R INPUT connectors.

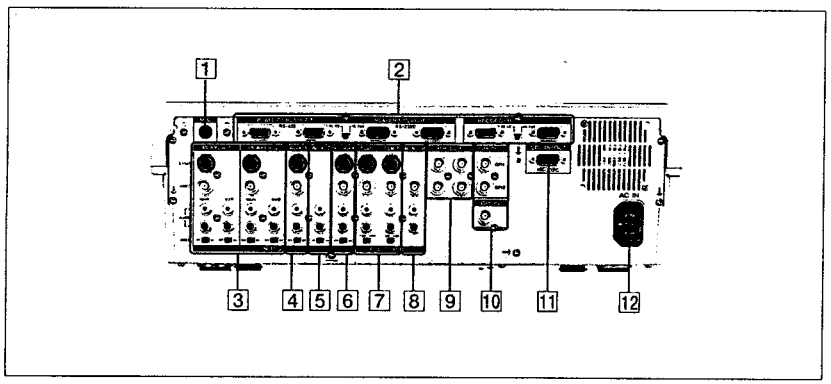
**3 AUX 1 knob**
This knob adjusts the audio level input to the AUX 1 L/R INPUT connectors.

**4 MONI OUT (monitor output) knob**
This knob adjusts the audio level output from the MONITOR AUDIO L/R OUTPUT connectors.

Each of the knobs 1 through 4 increases the volume when turned clockwise.

# Connector Panel

*For information about cables, see "Connections" (page 3-3).*

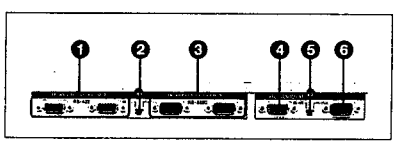



Connector panel

### 1 MIC (microphone) connector (monaural phone jack)

Connect a microphone. To adjust the audio input level from the microphone, set the AUX 2/MIC switch in the audio mixer section of the control panel to the MIC position, and move the AUX 2/ MIC fader.

### 2 VCR interface section




#### ❶ PLAYER 1/2 RS-422 connectors (D-sub 9-pin)

When using VCRs with RS-422 interfaces for player 1 and 2, connect these connectors to the RS-422 connectors (D-sub 9-pin) on the VCRs.

#### ❷ PLAYER 1/2 RS-422/RS-232C selector switch

**RS-422:** Set this switch to this position when connecting the player 1 and 2 VCRs to the PLAYER 1/2 RS-422 connectors ❶.

**RS-232C:** Set this switch to this position when connecting the player 1 and 2 VCRs to the PLAYER 1/2 RS-232C connectors ❸.

**Note**

Always turn the unit off before changing the position of the selector switches.

#### ❸ PLAYER 1/2 RS-232C connectors (D-sub 9-pin)

When using VCRs with RS-232C interfaces for player 1 and 2, connect these connectors to the RS-232C connectors (D-sub 25-pin) on the VCRs.

#### ❹ RECORDER RS-422 connector (D-sub 9-pin)

When using a VCR with an RS-422 interface for the recorder, connect this connector to the RS-422 connector (D-sub 9-pin) on the VCR.

#### ❺ RECORDER RS-422/RS-232C selector switch

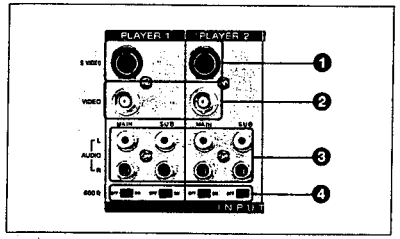
**RS-422:** Set the switch to this position when connecting the recorder VCR to the RECORDER RS-422 connector ❹.

**RS-232C:** Set the switch to this position when connecting the recorder VCR to the RECORDER RS-232C connector ❻.

#### ❻ RECORDER RS-232C connector (D-sub 9-pin)

When using a VCR with an RS-232C interface for the recorder, connect this connector to the RS-232C connector (D-sub 25-pin) on the VCR.

### 3 PLAYER 1/2 video/audio inputs




#### ❶ PLAYER 1/2 S VIDEO INPUT connectors (mini-DIN 4-pin)

Connect to the S-video output connectors of player 1 and player 2. When using these connectors, under item 101 VIDEO INPUT SELECT in the setup menu set P1 and P2 to S-V.

*For details, see Chapter 8.*

#### ❷ PLAYER 1/2 VIDEO INPUT connectors (BNC)

Connect to the composite video output connectors of player 1 and player 2. When using these connectors, under item 101 VIDEO INPUT SELECT in the setup menu set P1 and P2 to V.

*For details, see Chapter 8.*

#### ❸ PLAYER 1/2 AUDIO L/R INPUT connectors (phono jack)

Connect the left and right channel audio outputs from player 1 and player 2. Connect the channels which you want to use as the main audio input to the MAIN connectors, and those which you want to use as the subsidiary input to the SUB connectors.

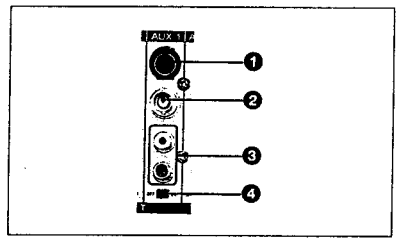
#### ❹ 600 Ω termination switches

Set these switches to correspond to the connector type on the VCR connected to the PLAYER 1/2 AUDIO L/R INPUT connectors ❸, as follows.

**ON:** 600 Ω termination. VCR connector is a Cannon XLR 3-pin connector.

**OFF:** 47 kΩ termination. VCR connector is a phono jack.

### 4 AUX (auxiliary) 1 video/audio inputs




#### ❶ AUX 1 S VIDEO INPUT connector (mini-DIN 4-pin)

Connect to the S-video output connector of the video source (video camera, VCR, laser disc player, etc.) used as auxiliary source 1. When using this connector, under item 101 VIDEO INPUT SELECT in the setup menu set AUX to S-V.

*For details, see Chapter 8.*

#### ❷ AUX 1 VIDEO INPUT connector (BNC)

Connect to the composite video output connector of auxiliary source 1. When using this connector, under item 101 VIDEO INPUT SELECT in the setup menu set AUX to V.

*For details, see Chapter 8.*

#### ❸ AUX 1 AUDIO L/R INPUT connectors (phono jack)

Connect the left and right channel audio outputs from auxiliary source 1.

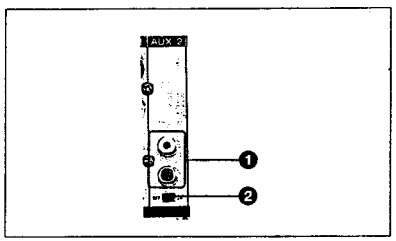
#### ❹ 600 Ω termination switch

Set this switch to correspond to the connector type on the source connected to the AUX 1 AUDIO L/R INPUT connectors ❸, as follows.

**ON:** 600 Ω termination. Source connector is a Cannon XLR 3-pin connector.

**OFF:** 47 kΩ termination. Source connector is a phono jack.

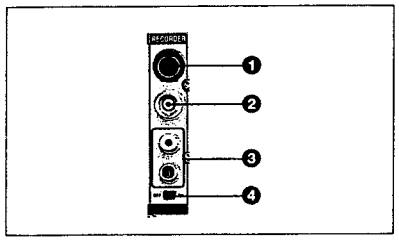
### 5 AUX (auxiliary) 2 audio inputs



**❶ AUX 2 AUDIO L/R INPUT connectors (phono jack)**
Connect the left and right channel audio outputs from the audio source (CD player, tape recorder, etc.) used as auxiliary source 2. To adjust the audio input level from auxiliary source 2, set the AUX 2/MIC switch on the audio mixer section of the control panel to the AUX 2 position, and move the AUX 2/MIC fader.

**❷ 600 Ω termination switch**
Set this switch to correspond to the connector type on the source connected to the AUX 2 AUDIO L/R INPUT connectors ❶, as follows.
**ON:** 600 Ω termination. Source connector is a Cannon XLR 3-pin connector.
**OFF:** 47 kΩ termination. Source connector is a phono jack.

### 6 RECORDER video/audio inputs



**❶ RECORDER S VIDEO INPUT connector (mini-DIN 4-pin)**
Connect to the S-video output connector of the recorder. When using this connector, under item 101 VIDEO INPUT SELECT in the setup menu set RECORDER to S-V. (The factory default setting is S-V.)

*For details, see Chapter 8.*

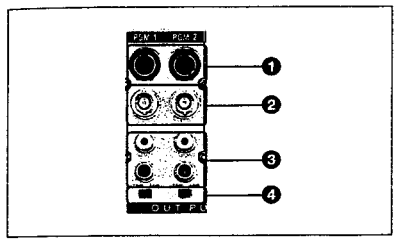
**❷ RECORDER VIDEO INPUT connector (BNC)**
Connect to the composite video output connector of the recorder. When using this connector, under item 101 VIDEO INPUT SELECT in the setup menu set RECORDER to V.

*For details, see Chapter 8.*

**❸ RECORDER AUDIO L/R INPUT connectors (phono jack)**
Connect the left and right channel audio outputs from the recorder.

**❹ 600 Ω termination switch**
Set this switch to correspond to the connector type on the recorder, as follows.
**ON:** 600 Ω termination. Source connector is a Cannon XLR 3-pin connector.
**OFF:** 47 kΩ termination. Source connector is a phono jack.

### 7 PGM (program) 1/2 video/audio outputs



These connectors output the program output, including all edits and special effects. The PGM 1 and PGM 2 connectors provide exactly the same video and audio signals.

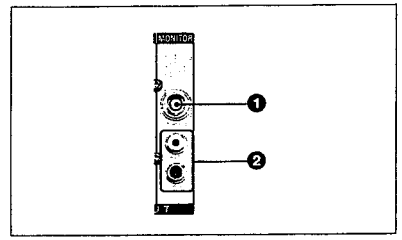
**❶ PGM (program) 1/2 S VIDEO OUTPUT connectors (mini-DIN 4-pin)**
Connect to the S-video input connectors of the recorder or program monitor.

**❷ PGM (program) 1/2 VIDEO OUTPUT connectors (BNC)**
Connect to the composite video input connectors of the recorder or program monitor.

**❸ PGM (program) 1/2 AUDIO L/R OUTPUT connectors (phono jack)**
Connect to the left and right channel audio input connectors of the recorder or program monitor.

**❹ –7.5 dB/+4 dB termination switches**
Set the output level to –7.5 dBs or +4 dBs for output of standard audio signals from the PGM 1/2 AUDIO L/R OUTPUT connectors ❸ depending on the recorder connector type.
**–7.5 dB:** –7.5 dBs output [1] (when input impedance on recorder side is 47 kΩ). Set to this position when connector type is phono jack.
**+4 dB:** +4 dBs output [1] (when input impedance on recorder side is 600 Ω). Set to this position when connector type is Cannon XLR 3-pin.

### 8 MONITOR output section



These connectors output the signals selected using the MONITOR section and SOURCE section of the control panel.

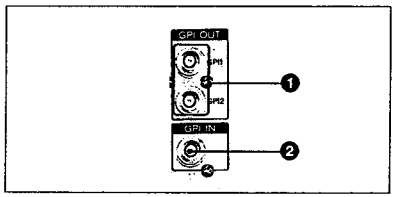
**❶ MONITOR VIDEO OUTPUT connector (BNC)**
Connect to the composite video input connector of the video monitor used as the main monitor.

**❷ MONITOR AUDIO L/R OUTPUT connectors (phono jack)**
Connect to the left and right channel audio input connectors of the main monitor.

**9 B.B OUT (black burst output) connectors (BNC)**
These connectors provide black burst signals from the internal sync generator. For video synchronization with sources, connect these to the reference video input, sync input, or GEN LOCK connectors of the source equipment.

1) 0 dBs = 0.775 Vrms

### 10 GPI (general purpose interface) connectors




#### ❶ GPI 1/2 OUT connectors (BNC)

These connectors output timing pulses for controlling the operation of a titler, computer, or other external device. You can adjust the timing of the pulses in units of one frame under items 307 GPI 1 TIMING and 308 GPI 2 TIMING in the setup menu.

*For details, see Chapter 8.*

#### ❷ GPI IN connector (BNC)

When this unit is being controlled from external equipment such as another editor, connect this connector to the GPI output connector of the other equipment to input the timing pulses from the other equipment.

### 11 EDL IN/OUT connector (D-sub 9-pin)

This connector transfers EDL (edit decision list) data. Connect it to the RS-232C connector of a computer or other external device equipped with an EDL management function.
Select input or output of the data under item 311 EDL SWITCH in the setup menu.

*For details, see Chapter 8.*

### 12 AC IN connector

Connect the unit to a 120 V AC power supply using the AC power cord supplied.

# Precautions

## Safety precautions

### Power
Operate the unit on:
- 120 V AC, 50/60 Hz (FXE-100)
- 220-240 V AC, 50/60 Hz (FXE-100P).

Do not place or drop heavy objects on the power cord. Protect the cord from damage. Using a damaged power cord is dangerous. Do not grasp the cord when pulling out of a power outlet. Grasp by the plug.

### Do not disassemble
Do not open the cabinet. There is a danger of shock if you touch the parts inside the unit.

### Do not drop foreign objects into the unit
Do not drop flammable or metal objects into the unit. Protect from water and liquids. Foreign objects dropped into the unit can cause malfunctions.

### In case of trouble
If you notice unusual noises, smells, or smoke coming from the unit, turn it off immediately. Pull the power plug from the outlet, disconnect external equipment and contact your Sony dealer or qualified Sony service personnel.

## Usage precautions

### Operating and storage conditions
Avoid using or storing the unit in places which are
- very hot or cold (operating temperature range 5°C to 40°C or 41°F to 104°F).
- exposed to direct sunlight, or near heaters.
- damp or dusty.
- subject to severe vibrations.
- near equipment generating strong electromagnetic emissions.
- near transmitting stations generating strong radio waves.

### Protect from shocks
Avoid dropping the unit or subjecting it to strong shocks.

### Maintenance
Clean the cabinet and panels by wiping with a soft, dry cloth. Remove severe stains by wiping with a cloth moistened with a neutral solvent, then wipe with a soft, dry cloth. Do not clean with alcohol, benzine, thinner, or other volatile liquids. Doing so may damage the paint or finish.

### Transporting the unit
When transporting the unit, protect from shocks by packing in the supplied carton or a comparable case.





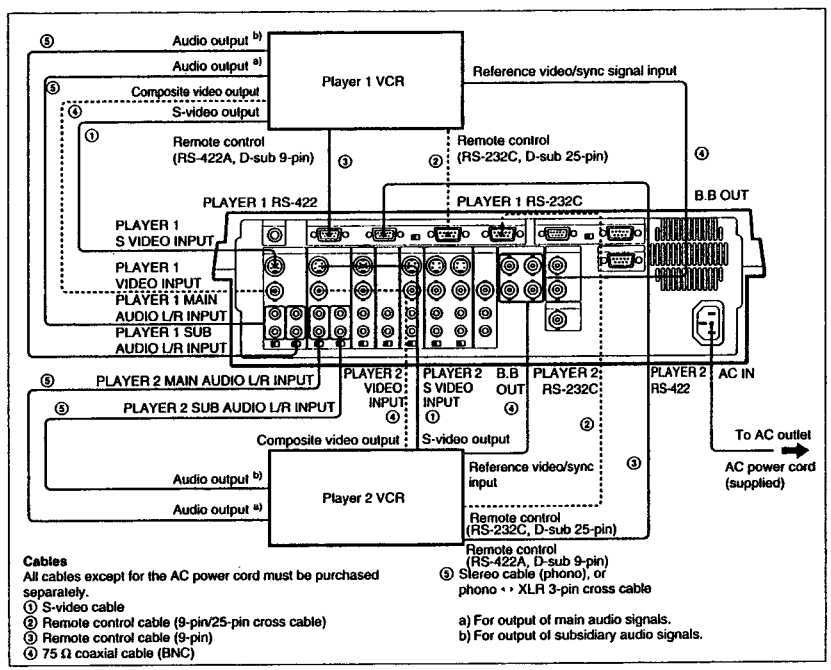
# Connections

This section describes connections to VCRs and other external equipment.

*For more information about configuring a system for a particular purpose, see "System Configuration Examples" (page 1-6).*

## Player 1 and Player 2 VCR Connections

Connect two players to perform A/B roll editing. Cut editing and A-roll editing are possible using one player.




Player 1 and player 2 VCR connections

**Notes**

- Depending on the connectors utilized here or on the connected equipment, settings may have to be changed on the connector panel or in the setup menu.

  *For details, see "Switch Settings and System Setup" (page 3-8).*

- After connecting the player and recorder VCRs, press the LEARN button on the control panel.

  *For details about the LEARN button, see "Measuring pinch-on delay" (page 3-15).*

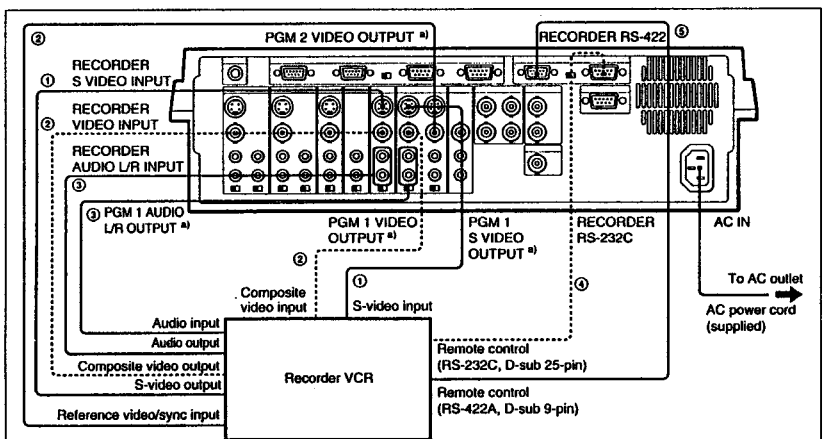
- Depending on the connected VCRs, device constants may have to be set using setup menu items 401 and 402.

  *For details, see Chapter 8.*

## Recorder VCR Connections

When the recorder's video and audio output connectors are connected to this unit's RECORDER INPUT connectors, freeze frame video may be input from the recorder to carry out mixes and wipes during A-roll editing. Also, signals can be input from the recorder in order to check the contents of the master tape on the main monitor.

*For more information about monitor connections, see "Main Monitor and Program Monitor Connections" (page 3-5).*




**Cables**
All cables except for the AC power cord must be purchased separately.
① S-video cable
② 75 Ω coaxial cable (BNC)
③ Stereo cable (phono), or phono ‹ › XLR 3-pin cross cable
④ Remote control cable (9-pin/25-pin cross cable)
⑤ Remote control cable (9-pin)

a) PGM 1 and PGM 2 output the same signals. Either may be connected as convenient.

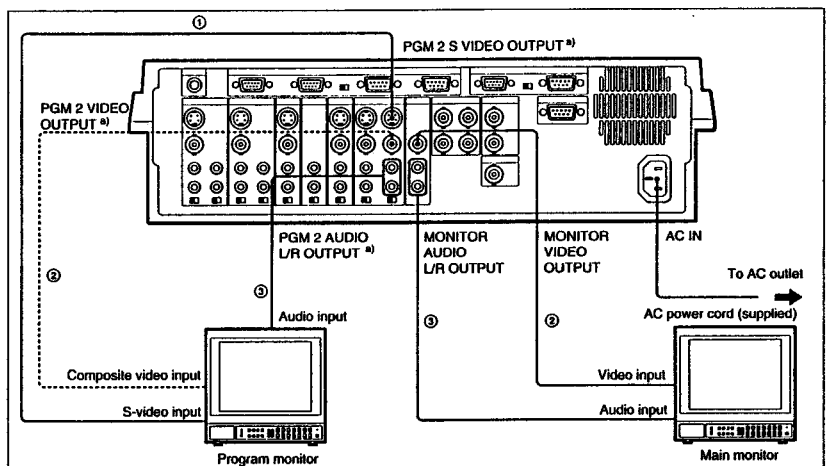
Recorder VCR connections

**Notes**

- As input to the recorder's reference video input connector, use signals from this unit's PGM 1/2 VIDEO OUTPUT connectors instead of signals from the B.B OUT connector.
- If the correct recorder freeze frame cannot be read in during A-roll editing, adjust the timing of freeze frame input under item 108 A-ROLL TIMING OFFSET in the setup menu.
- Depending on the connectors utilized here or on the connected equipment, settings may have to be changed on the connector panel or in the setup menu.
  *For details, see "Switch Settings and System Setup" (page 3-8).*
- After connecting the player and recorder VCRs, press the LEARN button on the control panel.
  *For details about the LEARN button, see "Measuring pinch-on delay" (page 3-15).*
- Depending on the connected VCR, a device constant may have to be set using setup menu item 403.
  *For details, see Chapter 8.*

## Main Monitor and Program Monitor Connections

Connecting a monitor to each VCR allows you to monitor the video and audio of each VCR continuously. But this unit is also equipped with a MAIN MONITOR connector, which allows you to monitor preview signals, program signals, and the signals of the connected VCRs.
A program monitor may be connected in order to monitor the signals that are sent to the recorder.




**Cables**
All cables except for the AC power cord must be purchased separately.
① S-video cable
② 75 Ω coaxial cable (BNC)
③ Stereo cable (phono)

a) PGM 1 and PGM 2 output the same signals. Either may be connected as convenient.

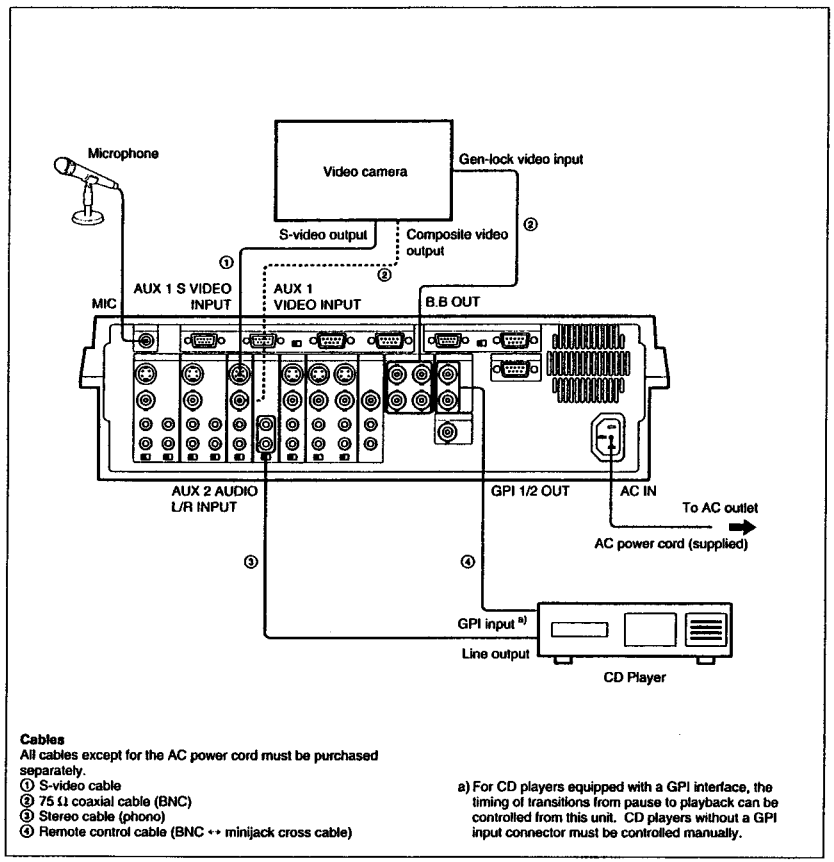
Main monitor and program monitor connections

**Note**

Depending on the connectors utilized here or on the connected equipment, settings may have to be changed on the connector panel or in the setup menu.

*For details, see "Switch Settings and System Setup" (page 3-8).*

## Video Camera, CD Player and Microphone Connections




**Cables**
All cables except for the AC power cord must be purchased separately.
① S-video cable
② 75 Ω coaxial cable (BNC)
③ Stereo cable (phono)
④ Remote control cable (BNC ↔ minijack cross cable)

a) For CD players equipped with a GPI interface, the timing of transitions from pause to playback can be controlled from this unit. CD players without a GPI input connector must be controlled manually.

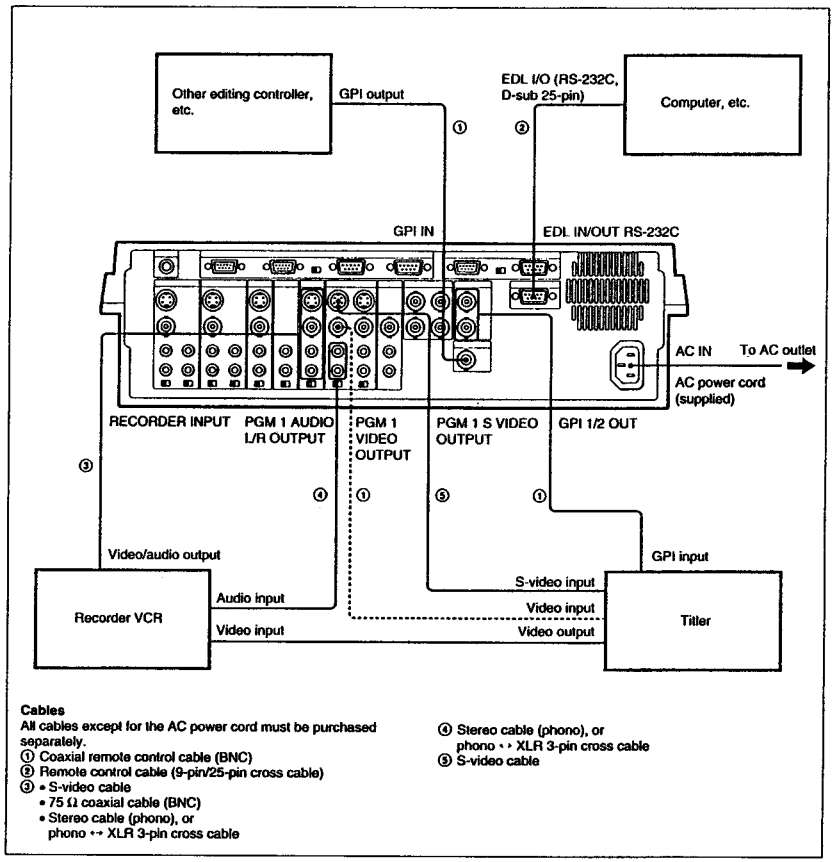
Video camera, CD player and microphone connections

**Note**

Depending on the connectors utilized here or on the connected equipment, settings may have to be changed on the connector panel or in the setup menu.

*For details, see "Switch Settings and System Setup" (page 3-8).*

## Titler, Computer and Editing Controller Connections




**Cables**
All cables except for the AC power cord must be purchased separately.
① Coaxial remote control cable (BNC)
② Remote control cable (9-pin/25-pin cross cable)
③ • S-video cable
  • 75 Ω coaxial cable (BNC)
  • Stereo cable (phono), or phono ↔ XLR 3-pin cross cable
④ Stereo cable (phono), or phono ↔ XLR 3-pin cross cable
⑤ S-video cable

Titler, computer and editing controller connections

**Note**

Depending on the connectors utilized here or on the connected equipment, settings may have to be changed on the connector panel or in the setup menu.

*For details, see "Switch Settings and System Setup" (page 3-8).*

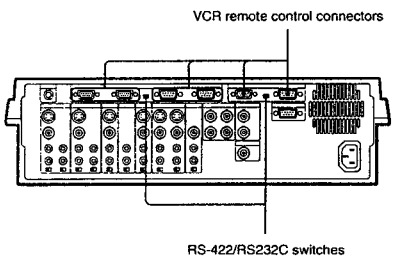
# Switch Settings and System Setup

Depending on which connectors are used on the connector panel, and the type of connectors used by connected equipment, it may be necessary to set connector panel switches or change settings in the setup menu.
This section explains the correct settings for each group of connectors.

*For details regarding the setup menu, see Chapter 8.*

## VCR remote control connectors

Set the RS-422/RS-232C switch as follows, depending on the connector used to control the VCR.




| Connector used | RS-422/RS-232C switch setting |
|---|---|
| RS-422 | RS-422 |
| RS-232C | RS-232C |

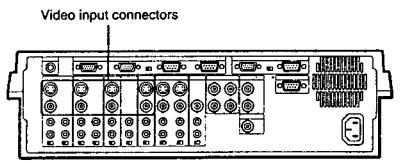
VCR remote control connectors and RS-422/RS-232C switches

**Notes**

- Always connect the same connectors for both player 1 and player 2. For example, it is not possible to connect player 1 using the RS-232C connector and player 2 using the RS-422 connector.
- Always turn the unit off before changing the RS-422/RS-232C switch setting. If you have changed the setting with the power on, turn unit off and power up again.

## Video input connectors

Set item 101 "VIDEO INPUT SELECT" in the setup menu as follows, depending on the connectors used for video input.



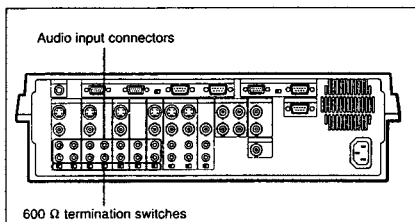

| Connector used | Menu item 101 VIDEO INPUT SELECT setting |
|---|---|
| S VIDEO | S-V a) |
| VIDEO | V |

a) Factory preset to S-V

Video input connectors and VIDEO INPUT SELECT setting

## Audio input connectors

Set the 600 Ω audio input termination switches as follows, depending on the type of audio output connectors on the connected equipment.

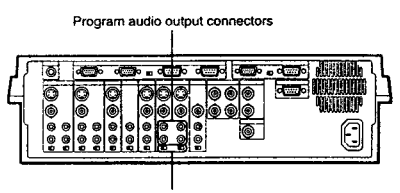



| Type of connector on connected equipment | 600 Ω termination switch setting |
|---|---|
| Phono jack | OFF |
| Cannon XLR 3-pin | ON |

Audio input connectors and 600 Ω termination switches

## Program audio output connectors

Set the –7.5dB/+4dB audio output switches as follows, depending on the type of audio input connectors on the connected equipment.

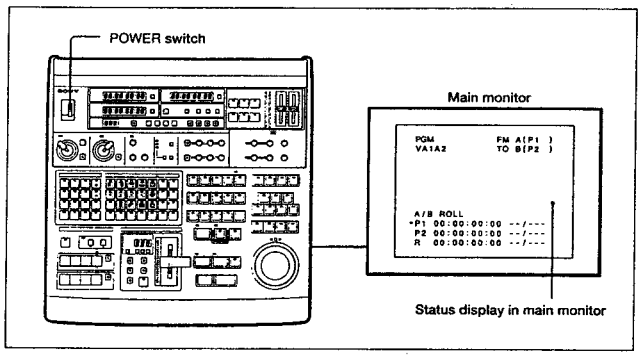



| Type of connector on connected equipment | –7.5dB/+4dB switch setting |
|---|---|
| Phono jack | –7.5dB |
| Cannon XLR 3-pin | +4dB |

Program audio output connectors and –7.5dB/+4dB switches

# About the Status Display

When you turn on this unit and the main monitor, the following information is displayed to indicate the current edit mode, sources, and edit points.



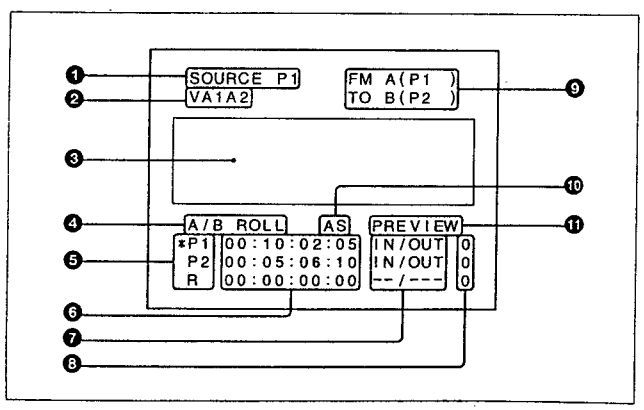

Status display

## Interpreting the status display

This section lists the information which appears in each section of the status display.

- See the page numbers given in parentheses after each item for detailed explanations of display items or related procedures.
- The following abbreviations are used for sources and the recorder.

**P1:** Player 1
**P2:** Player 2
**R:** Recorder
**AUX:** Auxiliary source 1




Information in status display





### ❶ Monitor signal area (page 4-11)

Displays the source of the signals selected with the buttons in the MONITOR section and currently being output from the MONITOR OUTPUT connectors to the main monitor.

**SOURCE P1 (P2, R-VTR, AUX):** A source selected with the SOURCE button in the MONITOR section and the buttons in the SOURCE section
**PGM:** The same signals as are output from the PGM 1/2 OUTPUT connectors
**A-BUS P1 (P2, AUX):** The source selected for bus A
**B-BUS P1 (P2, AUX):** The source selected for bus B

### ❷ Edit mode area (page 5-3)

Displays the mode selected in the EDIT MODE section.

**VA1A2:** Signal channel(s) selected with insert mode buttons (V: Video channel, A1: Audio channel 1, A2: Audio channel 2)
**ASMBL:** Assemble mode
**1ST-EDIT:** First edit mode
**TC-INS:** Time code insert mode

### ❸ Error message area (page A-2)

Error messages are displayed here.

### ❹ Edit type area (page 5-9)

Displays the edit type selected in the EDIT TYPE section.

**CUT P1 (P2, AUX):** Cut edit using P1, P2, or AUX on bus A
**A-ROLL P1 (P2, AUX):** A-roll edit using P1, P2, or AUX on bus A
**A/B ROLL:** A/B roll edit
**MANUAL:** Manual effects edit
**SYNC-ROLL:** Sync roll edit

### ❺ Selected VCR (page 4-2)

- An asterisk (*) precedes the name of the selected VCR.
- When auxiliary source 1 is selected by pressing the AUX button in the SOURCE section, "R" changes to "AUX".

### ❻ Time data area (page 5-13)

- Displays the IN point, OUT point and duration for each VCR in (hours: minutes: seconds: frames) format.

**Note**

Time code displayed in this area may be slightly later than time code signals actually recorded on the tape. If you want to superimpose time code on signals sent to the MONITOR OUTPUT connectors for use in off-line editing, use a time code reader.

With the FXE-100, a period (.) is displayed instead of a colon (:) between minutes and seconds when drop-frame mode time code is found on the recorded tape.

Example: 00:10.02:05
↑— Drop-frame mode time code was found on the recorded tape. This period is displayed regardless of the setting of setup menu item 110 FRAME CONTROL MODE (FXE-100 only).

A period (.) is displayed instead of a colon (:) between seconds and frames when time code has been interpolated from CTL signals because time code signals could not be read from the tape.

Example: 00:10:02.05
↑— Indicates that time code data has been interpolated from CTL signals.

- Displays the split offset (distance between video IN point and audio IN point) during split editing.

*For details, see "Setting Independent Video and Audio IN Points—Split Editing" (page 6-8).*

- Displays initial DT speed in DMC editing.

*For details, see "Editing Variable-Speed Playback—DMC Editing" (page 6-13).*

### ❼ Edit points area (page 5-13)

- Indicates whether or not IN/OUT points have been set for sources and recorder.
  **IN/– – –:** IN point is set.
  **– –/OUT:** OUT point is set.
  **IN/OUT:** IN and OUT points are set.
  **– –/– – –:** IN and OUT points are not set.
- Indicates the type of data displayed in the time data area ❻ when the IN, OUT or DUR button in the AUTO CONTROL section are pressed.
  **IN:** IN point is being displayed.
  **OUT:** OUT point is being displayed.
  **DUR:** Duration is being displayed.
- In numeric keypad mode, indicates the type of data being entered.
  **SET IN:** IN point is being entered.
  **SET OUT:** OUT point is being entered.
  **SET DUR:** Duration is being entered.

### ❽ Sync grade display (page 5-65)

Displays the synchronizing precision selected with item 301 SYNC GRADE in the setup menu, when setup menu item 303 SYNC GRADE DISPLAY is set to ON. Note that the factory default setting for this item is OFF, for no sync grade display.
**1:** ACCURATE
**2:** +/–1 FRAME
**3:** ROUGH
**4:** PREROLL & PLAY

*For details, see Chapter 8.*

### ❾ FROM source/TO source area (page 5-60)

When two sources are used, displays which signals are replaced during a transition.
**FM:** FROM source
**TO:** TO source
**A:** A bus
**B:** B bus
**P1, P2, AUX:** Source name

### ❿ "AS" area (page 6-8)

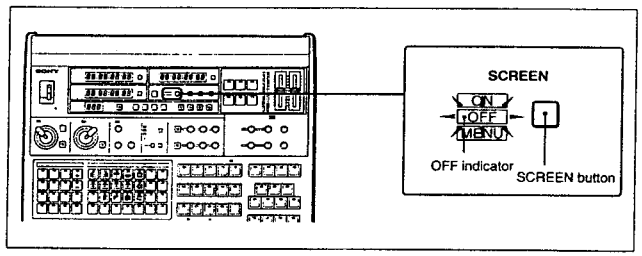
Shown when split editing (Audio Split) has been selected.

### ⓫ Operation area

Shows the current operation.
**PREVIEW:** Preview (page 5-61)
**AUTO EDIT:** Automatic edit execution (5-63)
**REVIEW:** Review (5-68)
**AUTO ASMBL:** Automatic assembly (5-66)

## About the Status Display

**To turn off the main monitor status display**
Press the SCREEN button until the OFF indicator lights.




Turning off the status display

# VCR Preparations

After connecting the VCRs, carry out the following preparations.

*For more information about settings on the VCR side, please consult your VCR manuals.*

- Insert a cassette.
- Set the REMOTE/LOCAL switch to REMOTE.
- Adjust the following:

**Player VCRs**
- Audio playback level
- Tracking
- Skew

**Recorder VCR**
- Video recording level
- Audio recording level
- Tracking

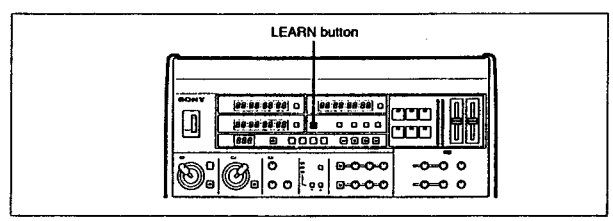
## Measuring pinch-on delay

When a VCR receives a tape transport command, the tape does not begin to move instantly. A certain amount of time, called the pinch-on delay, is required for the mechanical process of initiating tape transport. This unit has a function for measuring the pinch-on delay for up to three VCRs, connected to the PLAYER 1, PLAYER 2, and RECORDER RS-422 and RS-232C connectors. Measurement data is held in memory and used by the unit to synchronize VCRs as quickly as possible. After connecting the VCRs, be sure to press the LEARN button.

After connecting the VCRs, be sure to measure the pinch-on delay as follows.

**1** Insert tapes into each of the VCRs connected to the RS-422 and RS-232C connectors.

**2** Press the LEARN button on the control panel, turning it on.




Measuring pinch-on delay

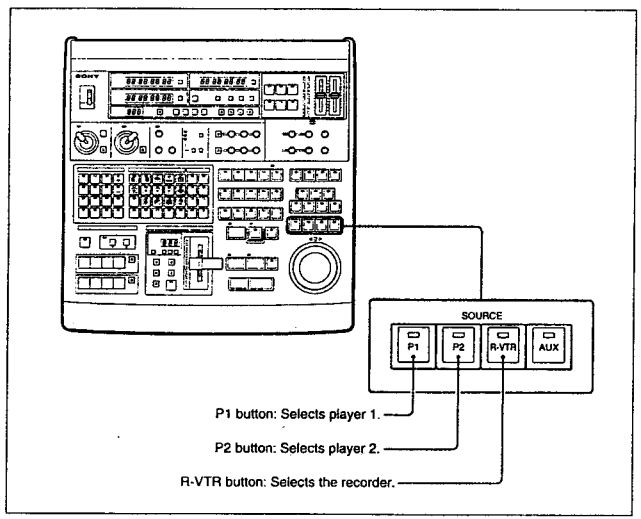
The VCRs begin to run, and the delay is measured automatically.
Measurement data is held in memory for about one week after the unit is turned off.
A check of preroll times which have been selected for each of the VCRs in the setup menu is also carried out. If the preroll times are too short, error codes are displayed in the corresponding time counter displays.

# Controlling the VCRs

The following section explains how to use this unit for manual control of two player VCRs and one recorder VCR, connected to the PLAYER 1/2 RS-422/RS-232C connectors and the RECORDER RS-422/RS-232C connectors on the connector panel.

## Selecting a VCR

When setting VCR edit points, or manually controlling VCR tape transport from this unit, select the VCR for each operation by pressing one of the P1, P2 or R-VTR buttons in the SOURCE section of the control panel.




Selecting a VCR

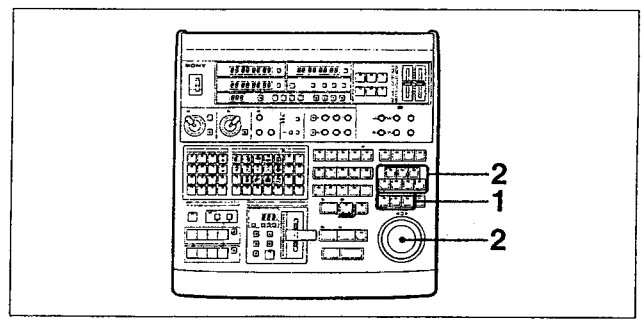
The button lights when you press it, and a '*' mark appears beside the selected VCR in the status display of the main monitor screen.

*For details, see "About the Status Display" on page 3-10.*

## Controlling Tape Transport Manually

When controlling tape transport manually from this unit, you can select two or three VCRs for simultaneous operation. This means that if you connect a monitor to each VCR, you can view playback and search for edit points on up to three VCRs simultaneously. Compared to a system with only one monitor, this configuration eliminates the need to switch back and forth between VCRs to view video output.

*For details, see "Monitoring Video and Audio Signals" (page 4-11).*




Controlling tape transport manually

**1** Select a VCR with a button from the SOURCE section (P1, P2, R-VTR).

**2** According to the operation, press one of the buttons in the MANUAL CONTROL section (the button lights), or use the search dial.

- **Using the MANUAL CONTROL buttons**

**REC button:** Hold down this button and press the PLAY button when you wish to record output signals from the PGM 1/2 OUTPUT connectors without making any edit settings.
This button works only when the R-VTR button in the SOURCE section is lit, and it affects only the recorder.

**SPEED, MK-SPD (= SHIFT + SPEED) and DMC buttons:** Use these buttons to control VCRs with dynamic tracking capability in Dynamic Motion Control (DMC) mode.

*For more information about Dynamic Motion Control, see "Controlling the Speed of Dynamic Tracking (DT) Playback" (page 4-6) and "Editing Variable-Speed Playback — DMC Editing" (page 6-13).*

**PLAY button:** Press to begin playback.

*(Continued)*

**STB OFF (= SHIFT + PLAY) button:** Press to put a paused VCR into standby off mode (in order to protect the tape and heads while you take an appreciable break from editing).
**STILL button:** Press to put a VCR into still picture playback mode.
**EJECT (= SHIFT + STILL) button:** Press to eject a cassette.
**REW button:** Press to rewind a tape.
**FF button:** Press to fast forward a tape.
**STOP (= SHIFT + FF) button:** Press to stop a VCR.

- **Using the search dial**
  Use the search dial to search for a scene at convenient playback speeds.

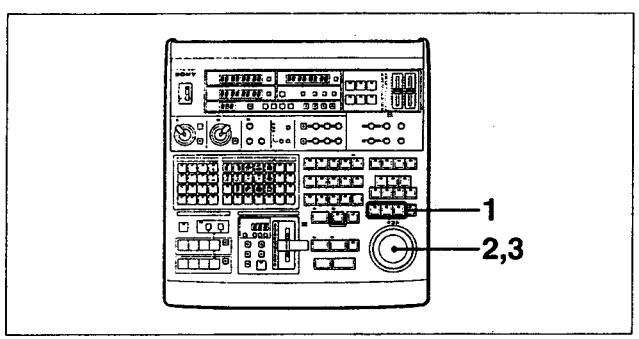
  *For details, see "Searching for a Scene With the Search Dial" below.*

**3** Repeat steps **1** and **2** to control other VCRs. You can control up to three VCRs simultaneously.

## Searching for a Scene With the Search Dial

When setting edit points, you can increase your editing efficiency by using the search dial to play back the tape at different speeds.
Each time you press the search dial, it changes from a raised to a depressed position, or the reverse. With the dial in the raised position, you can play back the tape at high speed in the forward or reverse directions (shuttle mode). With the dial in the depressed position, you can play back the tape in frame-by-frame manner in the forward or reverse directions (jog mode).

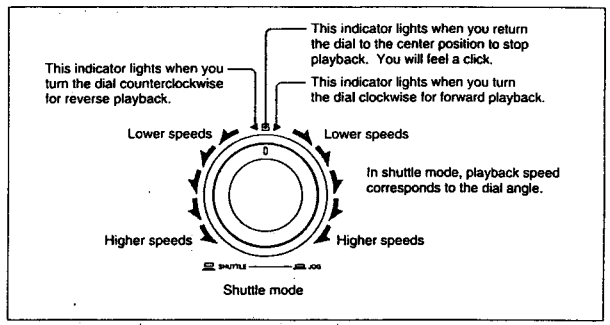
By combining shuttle and jog modes, you can locate scenes on the tape quickly and efficiently.



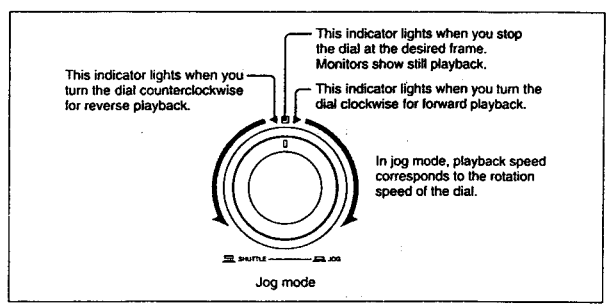

Searching for a scene with the search dial

**1** Select a VCR with a button from the SOURCE section (P1, P2, R-VTR).

**2** With the search dial in the raised position (shuttle mode), turn the dial clockwise or counterclockwise for high-speed playback. When you find the desired scene, return the dial to the center position to stop playback.




**3** Press the search dial down to the depressed position (jog mode), and turn the dial clockwise or counterclockwise to play back the tape frame by frame. When you find the desired frame, stop the dial at that position.

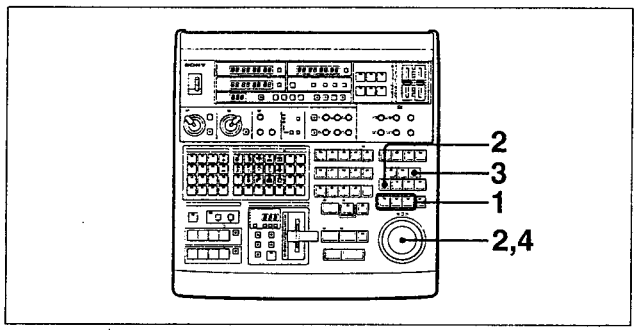



**Note**

The range of controllable playback speeds may differ in both jog and shuttle modes, depending on the capabilities of the connected VCRs.

## Controlling the Speed of Dynamic Tracking (DT) Playback

This unit supports Dynamic Motion Control (DMC). If your player VCRs support Dynamic Tracking (DT) playback, you can use the search dial to control tape speed for noiseless, variable-speed playback within their DT playback range.




Controlling DT playback speed

**1** Select a VCR with a button from the SOURCE section (P1, P2, R-VTR).

**2** Rotate the search dial or press the PLAY button in the MANUAL CONTROL section to begin playback.

**3** Stop the dial at the scene where you wish to begin DT playback, and press the DMC button in the MANUAL CONTROL section, turning it on.

The selected VCR enters DMC mode.

**4** Press the search dial to put it into shuttle mode, and rotate it to control the speed of DT playback.

In DMC mode, tape speed varies between –1 to +3 times normal speed, according to the angle of the dial. However, actual speeds may differ slightly, depending on the capabilities of the connected VCRs.





# Selecting Video and Audio Signals

This section is a preliminary introduction to the video switching and audio mixing features of this unit. It explains how to select input and output signals, how to adjust them, and how to monitor program signals on the main and program monitors.

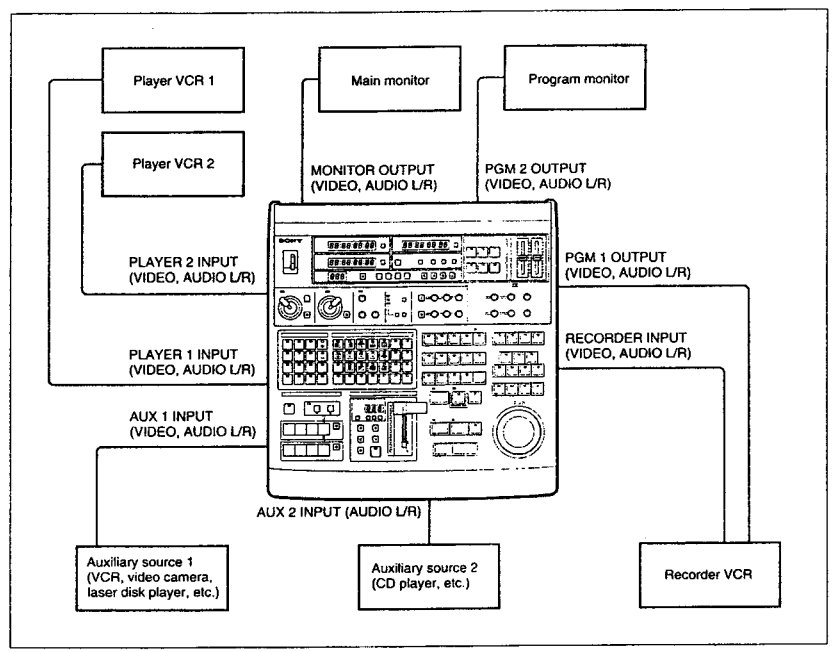
*For more information about input and output of audio signals, see "Audio Signal Flow " in the Appendixes (page A-7).*

The following explanations assume a system configured as shown below.

**Note**

Some settings may differ depending on the connected VCRs.

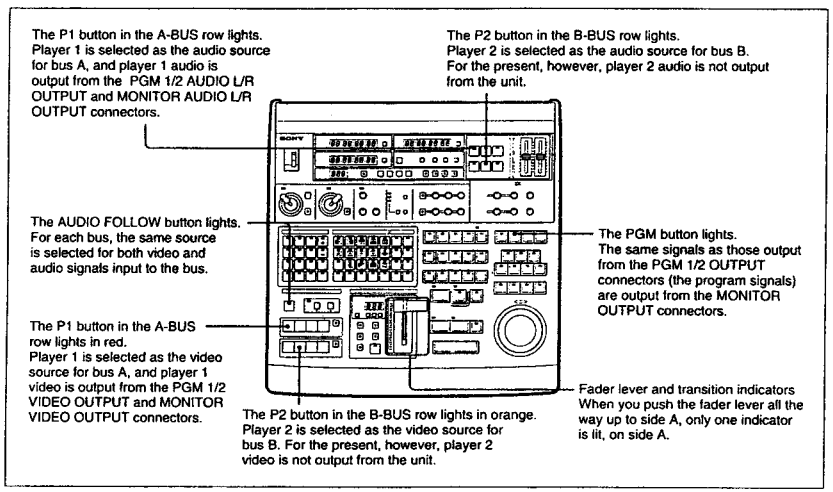
*For details, see "Connections" (page 3-3).*




Connected equipment and video/audio I/O connectors

## Default Input and Output Signals

Turn the unit on, and push the fader lever up all the way toward side A. As soon as you begin playback or shooting with the connected sources, video and audio from player 1 will be output to the recorder, connected to the PGM 1 OUTPUT connector, to the program monitor, connected to the PGM 2 OUTPUT connectors, and to the main monitor, connected to the MONITOR OUTPUT connectors. This is because the unit is automatically initialized as follows when you turn it on, depending on the position of the fader lever.




Default input and output signals

### About the colors of input button lights

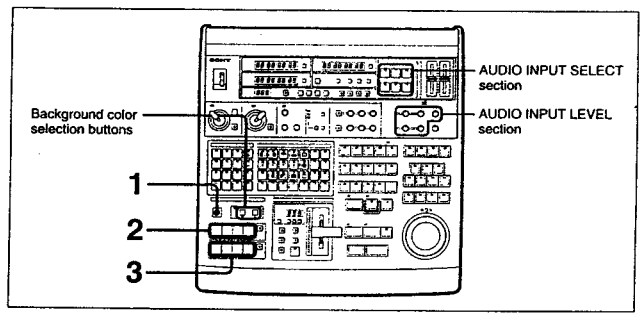
The meanings of the different colors of the buttons in the A-BUS row and B-BUS row of the VIDEO INPUT SELECT section are as follows.

- When a button **lights in red**, it means that the signal selected with that button is output from the PGM 1/2 OUTPUT connectors.
- When a button **lights in orange**, it means that the signal has been selected for input to the A or B bus, but not for output.
- When two buttons in either the A-BUS row or the B-BUS row **light in red**, it means that the signals selected with those buttons are mixed for output.
- When a button **flashes**, it means that there is no input to the connector selected by that button.
- **About the BKGD buttons**
  The BKGD buttons in the VIDEO INPUT SELECT section select color background output. Note that these buttons take precedence over other buttons in the same row (P1, P2, AUX). Even if the other buttons are lit, the output will be the color background.



## Selecting the Same Source for Video and Audio Inputs to a Bus

When the AUDIO FOLLOW button in the VIDEO INPUT SELECT section is lit, an operation which selects a video signal for input to a bus automatically selects the audio signal from the same source.




Selecting audio and video simultaneously

**1** If the AUDIO FOLLOW button is not lit, press it turning it on.

**2** To select the input signals for bus A, press the desired button in the A-BUS row of the VIDEO INPUT SELECT section so that it lights in red or orange.

*For the meaning of the red and orange colors, see "About the colors of input button lights" on page 4-8.*

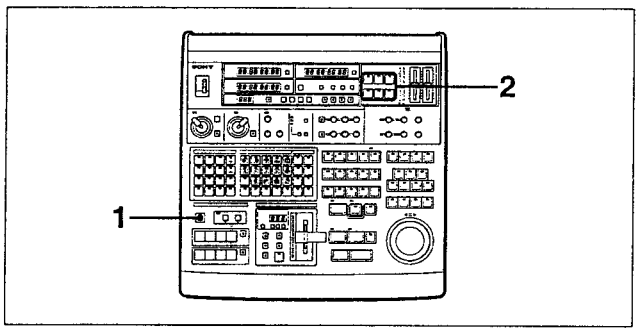
**P1 button:** Selects player 1 audio and video.
The P1 button in the A-BUS row of the AUDIO INPUT SELECT section lights automatically.
**P2 button:** Selects player 2 audio and video.
The P2 button in the A-BUS row of the AUDIO INPUT SELECT section lights automatically.
**AUX button:** Selects auxiliary source 1 audio and video.
The AUX 1 button in the A-BUS row of the AUDIO INPUT SELECT section lights automatically.
**BKGD button:** Selects a background color generated by the built-in color background generator.
You can select one of 25 colors by pressing the background color selection buttons (▲/▼).

When you press the BKGD button, any other buttons which may have been lit in the A-BUS row of the VIDEO INPUT SELECT section remain lit. However, the selection made with the BKGD button is given priority. Note that the audio signals of the currently selected source are always output, and may be adjusted with the controls in the AUDIO INPUT LEVEL section.
*For more information about adjusting the audio level, see "Adjusting Audio Levels" (page 4-16).*

**3** Proceed in the same way to make selections for bus B, pressing the desired button in the B-BUS row of the VIDEO INPUT SELECT section.

## Selecting Different Sources for Video and Audio Inputs to a Bus

You can select video and audio signals from different sources for input to each bus.




Selecting different sources for video and audio inputs to a bus

**1** If the AUDIO FOLLOW button in the VIDEO INPUT SELECT section is lit, press it turning it off.

**2** Press the desired buttons in the A-BUS and B-BUS rows of the AUDIO INPUT SELECT section, turning them on.

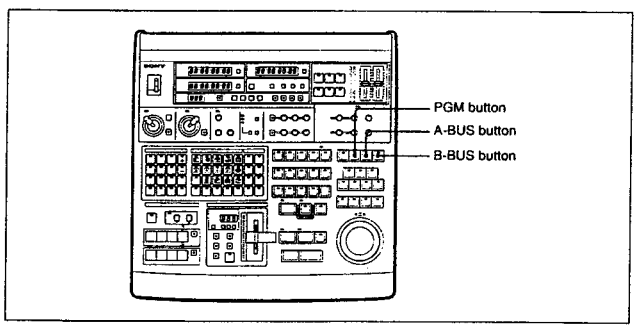
**P1 button:** Selects audio input from player 1.
**P2 button:** Selects audio input from player 2.
**AUX 1 button:** Selects audio input from auxiliary source 1.

## Monitoring Video and Audio Signals

You can monitor signals from bus A or bus B on both the program monitor, connected to the PGM 2 OUTPUT connectors, and the main monitor, connected to the MONITOR OUTPUT connectors.
In addition to signals from bus A and bus B, you can monitor signals from any connected source on the main monitor.

### Monitoring bus signals on the main monitor

To output signals from bus A to the main monitor, press the A-BUS button in the MONITOR section, turning it on. To output signals from bus B, press the B-BUS button. If you press the PGM button in the MONITOR section, you can output the signals currently being output from the PGM 1/2 OUTPUT connectors to the main monitor.




Monitoring bus signals on the main monitor

## Monitoring bus signals on the program monitor

When viewing output signals on the program monitor, you can switch from A-bus signals to B-bus signals, or the reverse.

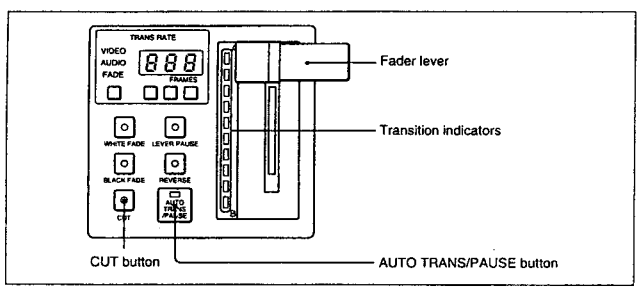
### Example: Switching from A-bus signals to B-bus signals

- Press the CUT button in the EFFECT TRANSITION section.
  The output from the PGM 1/2 OUTPUT connectors switches instantly from A-bus signals to B-bus signals.
  The single transition indicator which had been lit on the A side goes out, and a single transition indicator lights on the B side.
  When the CUT button is pressed, the AUTO TRANS/PAUSE button lights automatically, and the unit enters auto transition mode.

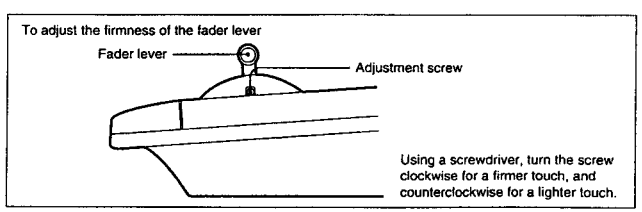
*For details about auto transition mode, see "Auto Transition Effects" (page 6-6).*

Or

- Pull the fader lever down from the A side to the B side.
  If the NORMAL MIX button in the MIX/EFFECT section is lit, then signals from bus A are mixed with signals from bus B during the time that the fader lever is being pulled from side A to side B. When the fader lever is pulled all the way down to side B, signals are output from bus B only.
  As the transition progresses, the number of lit transition indicators increases, and then decreases to only one when the fader lever is pulled all the way down to the B side.

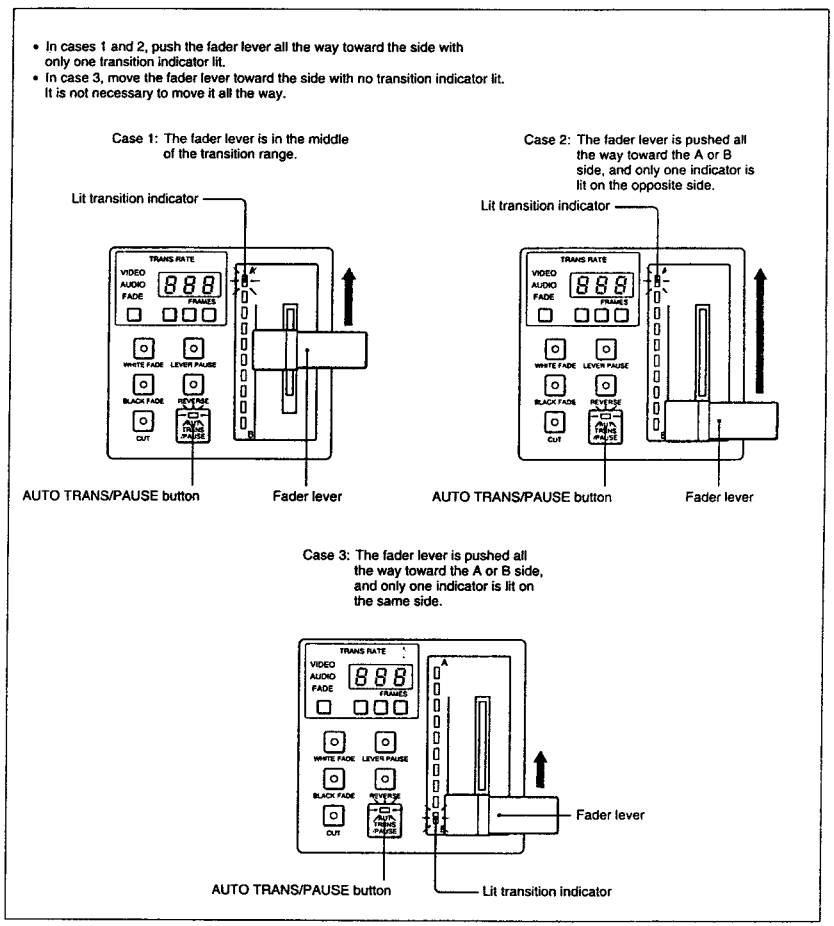



Switching output to the program monitor




### Note on the fader lever

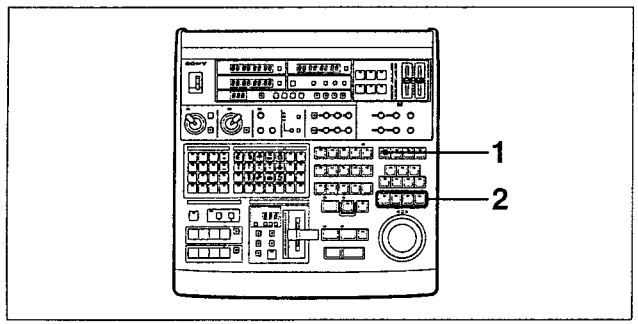
When the AUTO TRANS/PAUSE button is lit, the fader lever is disabled. To use the fader lever, you must extinguish the AUTO TRANS/PAUSE button.
To extinguish the AUTO TRANS/PAUSE button, proceed as follows:




To extinguish the AUTO TRANS/PAUSE button

### Monitoring source signals directly

You can output source signals directly to the main monitor without passing through the A bus or the B bus.
Proceed as follows to select source signals for direct output to the main monitor.




Switching source signals for output to the main monitor

**1** Press the SOURCE button in the MONITOR section, turning it on.

The PGM button goes out. The video and audio signals which are currently selected by SOURCE section buttons are output to the main monitor.

**2** To monitor another source, press the desired SOURCE section button, turning it on.

**P1 button:** To monitor audio and video input from player 1.
**P2 button:** To monitor audio and video input from player 2.
**R-VTR button:** To monitor audio and video input from the recorder.
**AUX button:** To monitor audio and video input from auxiliary source 1.

The SOURCE section button which had been lit up to now goes out, and signals from the newly selected source are output to the main monitor.

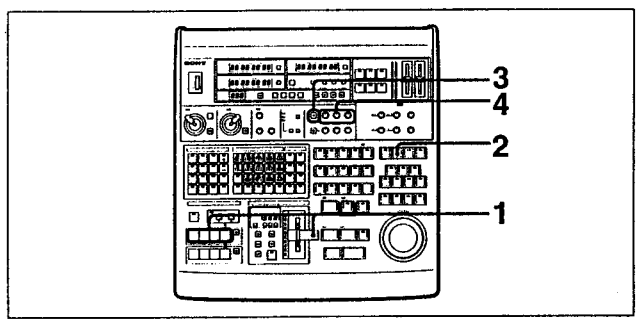


# Adjusting Video and Audio Signals

By adjusting the color characteristics of input video, and adjusting the audio input level, you can output signals to match the effects you desire from the PGM 1/2 OUTPUT connectors.

## Adjusting Video Signals

While viewing the monitor, you can adjust the hue (FXE-100) or color subcarrier phase (FXE-100P), luminance, and chrominance of the video output.
The following example shows how to adjust A-bus video output signals while viewing the monitor.




Adjusting video signals

**1** Push the fader lever up to the A side, and select the signals you want to adjust with the selection buttons in the A-BUS row of the VIDEO INPUT SELECT section.

**2** Press the PGM button in the MONITOR section.

The signals selected in step **1** are output to the main monitor.

**3** Press the A-BUS button in the VIDEO LEVEL & HUE (FXE-100) or VIDEO LEVEL & CHROMA PHASE (FXE-100P) section.

The HUE (FXE-100) or CHROMA PHASE (FXE-100P), LUMINANCE and CHROMINANCE knobs to the right of the button are enabled.

**4** While viewing the main monitor, rotate the knobs to adjust the video.

**HUE knob (FXE-100):** Adjusts the hue.
**CHROMA PHASE knob (FXE-100P):** Adjusts the color subcarrier phase.
**LUMINANCE knob:** Adjusts the brightness.
**CHROMINANCE knob:** Adjusts the saturation.

**Note for FXE-100P**

When adjusting the color subcarrier phase, use a vectorscope to measure the adjustments.

If you want to adjust the white balance, use the COLOR CORRECTION joystick.

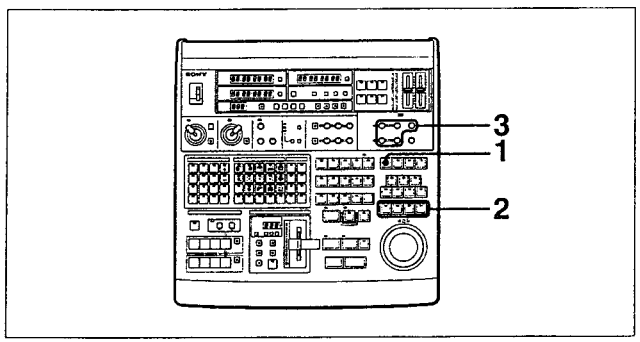
*For details, see "Color correction" (page 5-51).*

# Adjusting Audio Levels

This section will explain how to adjust audio input and output levels.

## Adjusting the audio input level

To adjust the audio input level from VCRs or auxiliary source 1, proceed as follows.




Adjusting the audio input level from VCRs or auxiliary source 1

**1** Press the SOURCE button in the MONITOR section, turning it on.

**2** Select the audio source by pressing one of the buttons (P1, P2, R-VTR, AUX) in the SOURCE section.

**P1 button:** Player 1
**P2 button:** Player 2
**R-VTR button:** Recorder
**AUX button:** Auxiliary source 1

**3** Adjust using the knobs in the AUDIO INPUT LEVEL section, while monitoring the audio level meters in the audio mixer section.

**P1 MAIN, P2 MAIN knobs:** Player 1 and player 2 main audio level.
**P1 SUB, P2 SUB knobs:** Player 1 and player 2 secondary audio level.
**AUX 1 knob:** Auxiliary input 1 audio level.

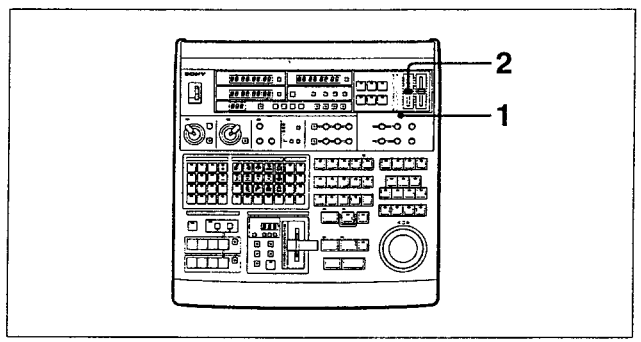
**Note**

The left (L) and right (R) channels are adjusted together. They cannot be adjusted separately.

### Adjusting audio input from microphones and auxiliary source 2

Regardless of the position of the fader lever (and the number of lit transition indicators), you can mix narration and background music from a microphone or auxiliary source at the desired level with the audio of bus A or bus B, for output from the PGM 1/2 AUDIO L/R OUTPUT connectors.

To adjust the level of audio input from the microphone or auxiliary source 2, proceed as follows.




Adjusting the level of audio input from microphones and auxiliary source 2

**1** Using the AUX 2/MIC switch in the audio mixer section, select the audio signal which you wish to adjust.

**AUX 2:** Adjust the level of audio input from auxiliary source 2.
**MIC:** Adjust the level of audio input from the microphone.

**2** Move the AUX 2/MIC fader to adjust the audio input level.

The further up the fader is, the higher the audio level.

**Notes**

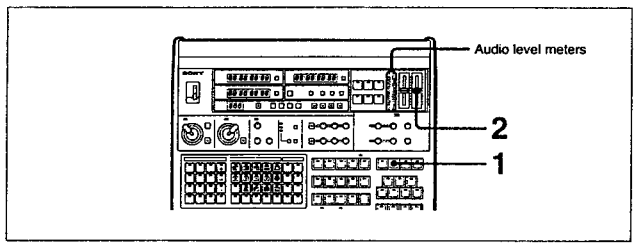
- The left (L) and right (R) auxiliary source levels are adjusted together. They cannot be adjusted separately.
- Microphone input is monaural.

*For more information about the flow of audio signals see page A-7.*

1-34

## Adjusting audio output levels

### To adjust the level of all output from the PGM 1/2 AUDIO L/R OUTPUT connectors




Adjusting the level of all output from the PGM 1/2 AUDIO L/R OUTPUT connectors

**1** Press the PGM button in the MONITOR section, lighting it, to select program signals for output to the main monitor.

**2** While monitoring the level meters in the audio mixer section, move the MASTER fader to adjust the level.

The further up the fader is, the higher the audio level.

**Note**

The left (L) and right (R) channels are adjusted together. They cannot be adjusted separately.

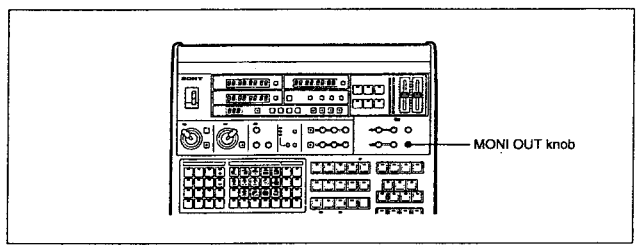
*For more information about the flow of audio signals see page A-7.*

### To adjust the level of output from the MONITOR AUDIO L/R OUTPUT connectors

Rotate the MONI OUT knob in the AUDIO INPUT LEVEL section clockwise to increase the level, and counterclockwise to decrease it.

**Note**

The left (L) and right (R) auxiliary source levels are adjusted together. They cannot be adjusted separately.

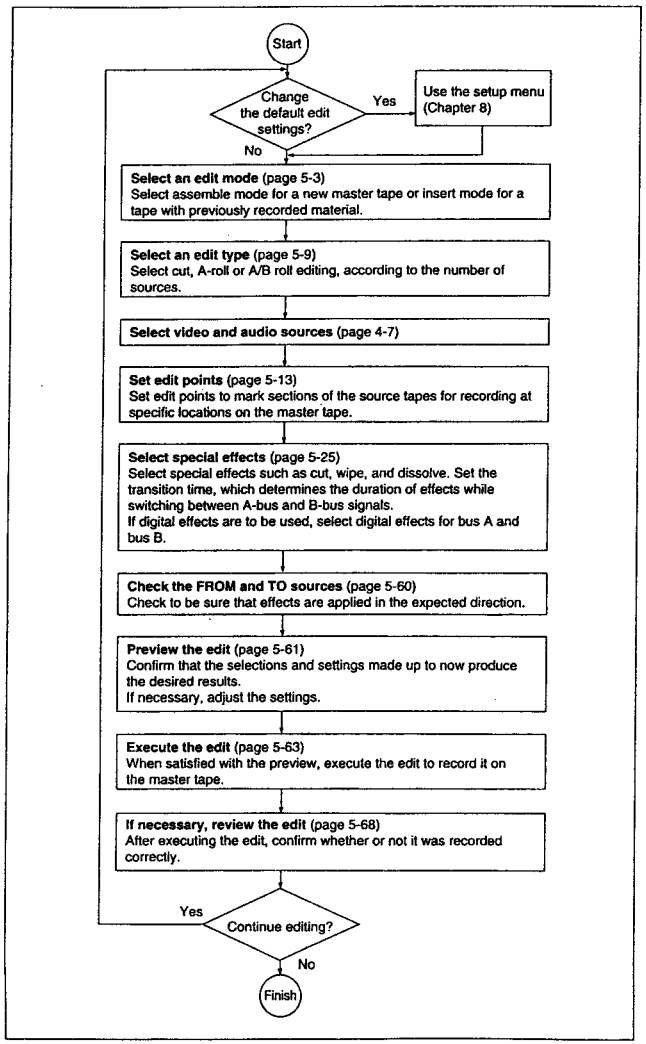



Adjusting the level of output from the MONITOR AUDIO L/R OUTPUT connectors

*For more information about the flow of audio signals see page A-7.*

# Common Editing Procedures

The following is a flowchart of basic operations which are common to every editing session. See the page numbers in parentheses for detailed descriptions of each operation.



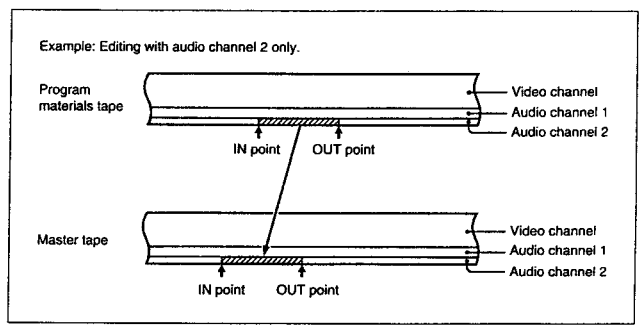

Flowchart of a typical editing session

# Selecting an Edit Mode

This section describes the unit's edit modes and explains when to select them.

## Insert Mode

Select insert mode when you want to insert program material at specific points on a previously recorded tape. You can insert video and audio simultaneously, video only, or audio only. You can also specify channel 1 audio, channel 2 audio, or both. Unlike assemble mode editing, insert mode editing does not affect sections of the tape beyond the recorder OUT point, because the unit switches from recording mode to playback mode as soon as the OUT point is reached.
Insert mode is selected by default when you turn the unit on.




Insert mode editing

Select insert mode when you wish to:
- record video and audio over unneeded sections of a previously recorded tape.
- insert music and narration into a tape containing an edited video program.
- insert video into a tape containing an edited audio program.

**Note**

Tapes with nothing at all recorded on them cannot be used as master tapes in insert mode editing. Normally, master tapes should be prepared by recording black burst signals in advance.

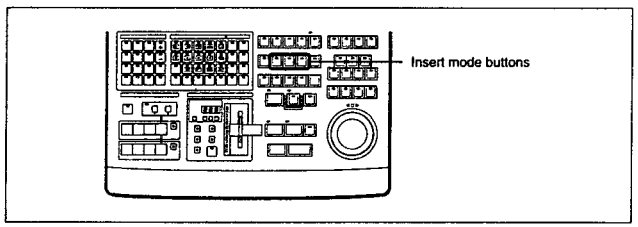
*For details, refer to the handbook supplied with this unit.*

## Selecting insert mode

Select the channel(s) to edit by pressing the insert mode buttons (V, A1, A2) in the EDIT MODE section of the control panel, turning them on.

**V button:** Edit the video channel.
**A1 button:** Edit audio channel 1.
**A2 button:** Edit audio channel 2.

You can press several buttons to edit multiple channels.




Selecting insert mode channels

### To cancel a channel selection

Press the corresponding insert mode button, turning it off.

### To exit insert mode

Press all of the lit insert mode buttons.
When you press the last lit button, instead of going off it begins to flash, along with the other two insert mode buttons. The ASMBL button also begins to flash. This means that no edit mode is currently selected.

## Time code insert mode

Use this mode to add time code to tapes with previously recorded audio or video.

*For details, see "Recording Time Code — Time Code Insert" (page 6-22).*

## Split mode

You can set independent IN points for audio and video.

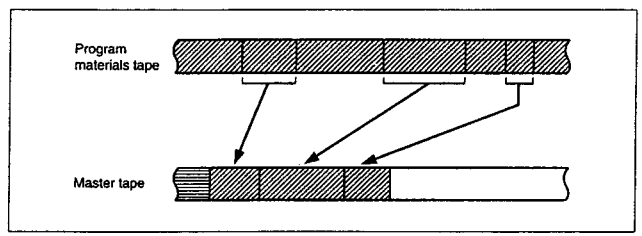
*For details, see "Settting Independent Video and Audio IN Points — Split Editing" (page 6-8).*



# Assemble Mode and First Edit Mode

## Assemble mode

Select assemble mode when you want to record sequentially from the start of a master tape. Video and audio are recorded on the master tape together with control and time code signals. If time code signals have already been recorded on the master tape, then the newly recorded time code signals will be recorded in sequence with the existing signals.
Assemble mode is convenient when using a new tape as the master tape.




Assemble mode editing

### Notes on assemble mode editing

- When an assemble edit is executed for the first time on a master tape, the unit expects to find CTL signals recorded on the tape from the preroll point or earlier up to and including the IN point. If CTL signals have not yet been recorded on the tape, execute a first edit before selecting assemble mode.

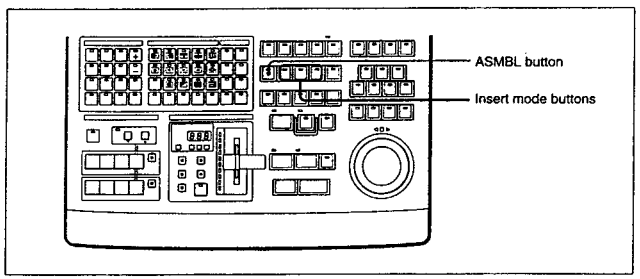
  *For details, see "First edit mode" (page 5-7).*

- If you begin an assemble edit at a point midway though an already recorded tape, signals will be erased across the entire width of the tape for about two seconds after the recorder's OUT point. Both video and audio signals recorded in this two-second section will be lost. If you wish to avoid this, select insert mode instead of assemble mode.

## Selecting an Edit Mode

### Selecting assemble mode

Press the ASMBL button in the EDIT MODE section of the control panel, turning it on.
If any insert mode buttons (V, A1, A2) are lit, press them to turn them off before pressing the ASMBL button.




Selecting assemble mode

#### To exit assemble mode

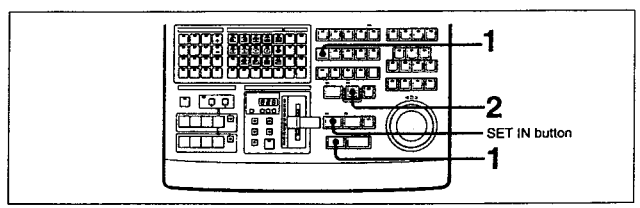
Press the ASMBL button, turning it off, or press one of the insert mode buttons (V, A1, A2), turning it on.

### First edit mode

If there is nothing at all recorded on the master tape, you will be unable to execute even an assemble edit. This is because the unit needs to find control signals on the master tape, at least around the edit IN point, in order to synchronize the tapes.
When using a blank tape for the first time, select first edit mode to perform an initializing assemble edit. Black burst signals, CTL signals, and time codes will be recorded for about twelve seconds plus the preroll time from the beginning of the tape.
After executing a first edit, the unit automatically enters assemble mode.

### Executing a first edit

Proceed as follows to execute a first edit.




Editing in first edit mode

**1** In the EDIT MODE section, press the 1ST EDIT (=SHIFT+ASMBL) button after verifying that:
- the ASMBL button is lit, or
- the ASMBL button and insert mode buttons (V, A1, A2) are flashing.

If any insert mode buttons are lit, press to turn them off, until they begin flashing together with the ASMBL button.
When you press the 1ST EDIT (=SHIFT + ASMBL) button, it begins flashing more rapidly than normal.

**2** Press the AUTO EDIT/END button in the AUTO CONTROL section.
The recorder begins to run. Black burst signals, CTL signals, and time code signals are recorded as follows from the beginning of the tape to just beyond the IN point, a length sufficient for synchronization.
- **Before the IN point:** 10 seconds, plus the preroll time selected under setup menu item 102 PREROLL TIME.
  *For details, see Chapter 8.*
- **After the IN point:** 2 seconds

1-38

### To set an IN point time code other than 00:00:00:00

After step 1, press the MARK IN button in the TIME MARK section, or press the SET IN (=SHIFT + MARK IN) button and enter the desired time code with the numeric keypad.

*For details, see "Setting edit points with the numeric keypad" (page 5-15).*

### About time code and control signals

Under setup menu item 104 EDIT REFERENCE, you can specify whether time code or CTL signals shall be used as tape positioning information. The unit is factory preset to use longitudinal time code (LTC, time code recorded along the length of the tape).

**Notes**

- With the FXE-100, time code is recorded in non-drop frame mode when setup menu item 110 FRAME CONTROL MODE is set to AUTO.
  Note that this menu item is not incorporated in the FXE-100P.
- The data selected under setup menu item 105 USER BITS is recorded in time code user bits.

*For details, see Chapter 8.*



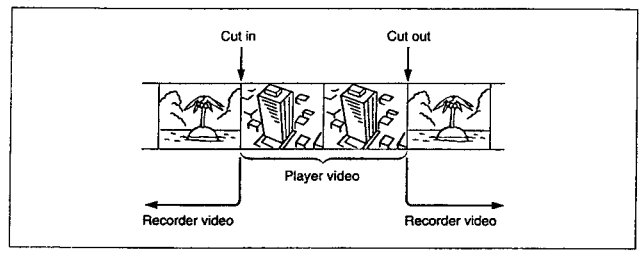


# Selecting an Edit Type

Depending upon whether you are using one or two players, select the type of insert or assemble edit.

## Cut Editing

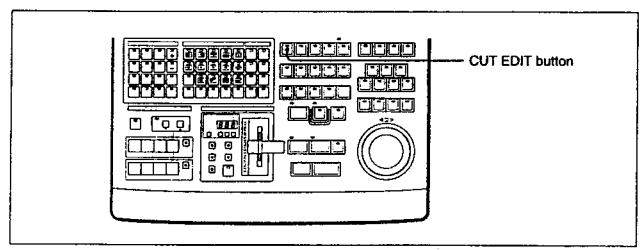
Cut editing is editing with one player, with instantaneous cuts between player and recorder signals at the recorder IN and OUT points.




Cut editing

### To select cut editing

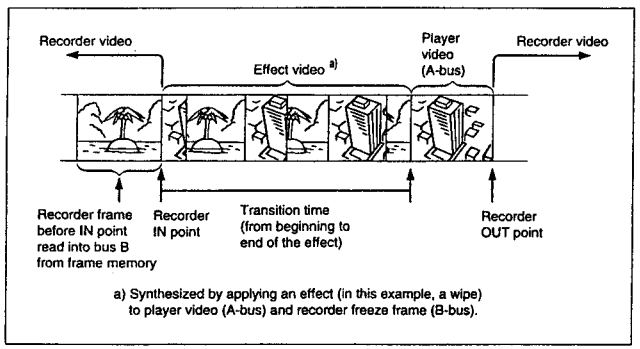
Press the CUT EDIT button in the EDIT TYPE section, turning it on.




To select cut editing

## A-Roll Editing

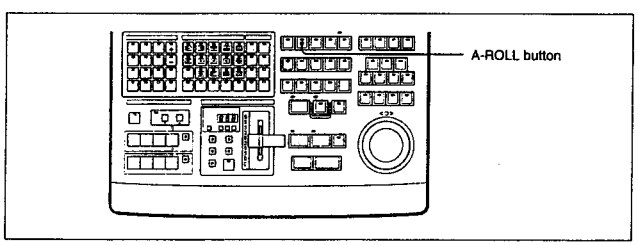
A-roll editing is like cut editing in that it uses only one player. In A-roll editing, however, the playback frame before the recorder IN point is read into bus B, making it possible to use the two signals (A-bus and B-bus) in effects such as wipes and dissolves.




A-roll editing

### To select A-roll editing

Press the A-ROLL button in the EDIT TYPE section, turning it on.




To select A-roll editing

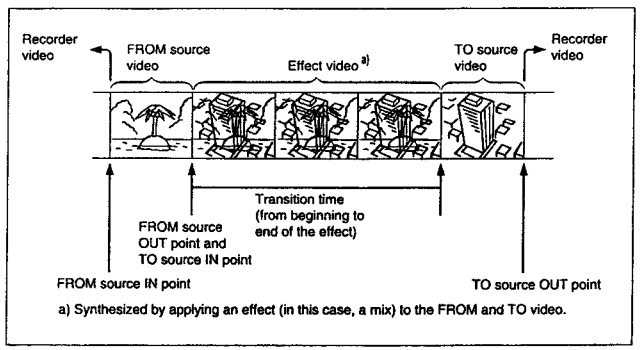
**Note**

The following restrictions apply in A-roll editing.

- In order to read signals from the recorder into bus B, the player source must always be selected by pressing a button in the A-BUS row of the VIDEO INPUT SELECT section.
- If the BKGD button in the B-BUS row is lit, video signals from the recorder cannot be read into bus B, meaning that the effect will use video signals from bus A and a background color from bus B. If the BKGD button is lit, press it to turn it off.

## A/B Roll Editing

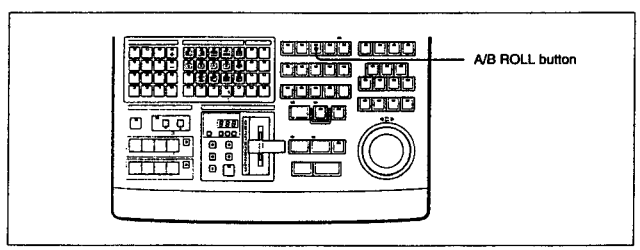
A/B roll editing allows you to record while applying effects such as wipes and dissolves to the playback of two players. The player supplying the signals which appear before the transition is called the FROM source, and the player supplying the signals which appear after the transition is called the TO source.




A/B roll editing

### To select A/B roll editing

Press the A/B ROLL button in the EDIT TYPE section, turning it on.




To select A/B roll editing

**Note**

This unit also allows a single player to be used to switch from A-bus signals to B-bus signals. In this case too, A/B roll edit should be selected as the edit type by pressing the A/B ROLL button.

*For details, refer to "Applying Digital Effects to Input Signals While Switching Between Two Scenes With One Player" in the FXE-100 handbook.*

# Manual Effects and Sync Roll Editing

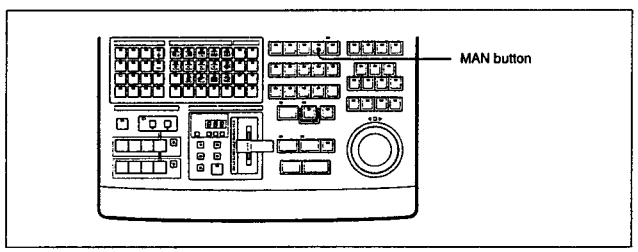
## Editing with manual effects

While running two players, you can operate the controls for manual effects at the desired scene. The effects are recorded on tape but not registered in the edit decision list (EDL).

*For more information about the EDL, see Chapter 7.*

### To select manual effect editing

Press the MAN button in the EDIT TYPE section, turning it on.




To select manual effect editing

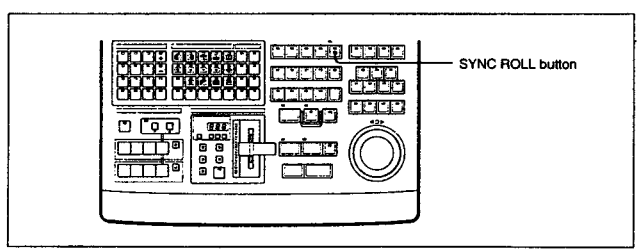
*For more information about manual effects, see "Editing With Manual Special Effects" (page 6-4).*

## Sync roll editing

Sync roll editing is similar to manual editing, except that the effects are registered in the edit decision list. While running two players, operate the controls to achieve the desired effect at the desired scene.

### To select sync roll editing

Press the SYNC ROLL button in the EDIT TYPE section, turning it on.




To select sync roll editing

*For more information about sync roll editing, see page 6-2.*



# Setting Edit Points

This section will explain how to set and modify edit points.

## Setting Edit Points

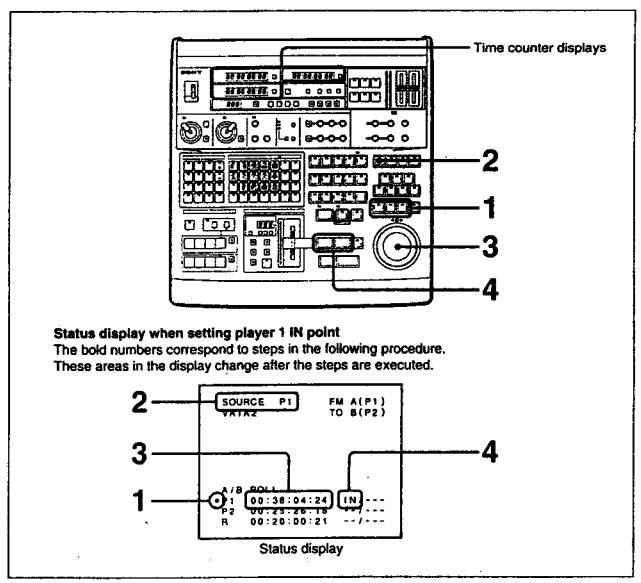
There are two ways to set an edit point:

- Search for the desired frame while viewing playback on the monitor, and then operate the controls to store the time code for that frame in the unit's memory.
- Enter the edit point data manually using the numeric keypad.

## Setting edit points while viewing playback

Proceed as follows to set edit points while viewing playback on the main monitor. If the ON indicator in the SCREEN section is lit, a status display in the main monitor will be updated as you carry out each step.

*For details, see "About the Status Display" (page 3-10).*




Setting edit points while viewing playback

**1** Select a VCR by pressing a button in the SOURCE section.
**P1 button:** Player 1
**P2 button:** Player 2
**R-VTR button:** Recorder

- The source button lights. The IN and OUT indicators next to the time counter display for that VCR begin to flash.
- If you have already set an IN point, the IN indicator will be lit. If you have already set an OUT point, the OUT indicator will be lit. In this case, you can update the edit points by executing steps **2**, **3** and **4**.

**Status display**
Shows ∗ in front of the selected VCR.

**2** Press the SOURCE button in the MONITOR section.
The button lights, and playback from the VCR selected in step **1** appears in the main monitor. You can skip this step if you have connected a monitor for each VCR.

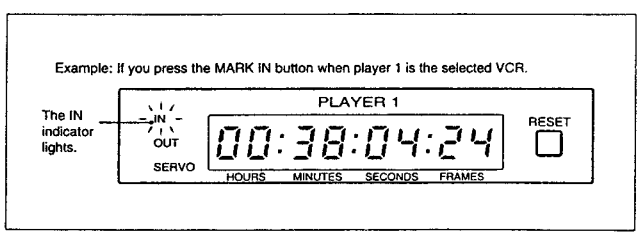
**Status display**
Shows "SOURCE" in the monitor signal area, followed by the name of the selected VCR.

**3** While viewing the main monitor, rotate the search dial until you find the desired frame, then stop the dial.
Time code data recorded on the tape for that frame appears in the time counter display.

*For details, see "Searching for a Scene With the Search Dial" (page 4-4).*

**Status display**
Shows the selected VCR's current tape position in the time code area.

**4** Press the MARK IN or MARK OUT button in the TIME MARK section.
**MARK IN:** The time code in the time counter display is set as the IN point. The IN indicator stops flashing and lights.
**MARK OUT:** The time code in the time counter display is set as the OUT point. The OUT indicator stops flashing and lights.




**Status display**
Shows "IN/– – – " in the time code area.

**Note**

If the VCRs are not connected correctly, or if the unit was unable to read time code information, an error code will appear in the time counter display.

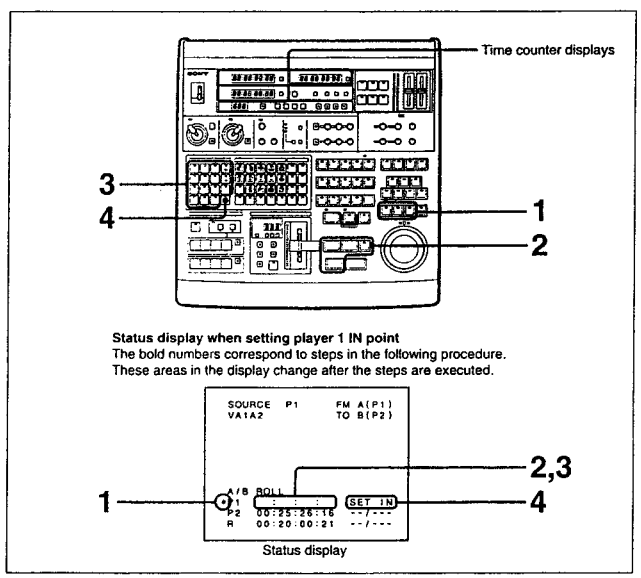
*For details, see "Error Messages" in the Appendixes (page A-2).*

**5** Repeat steps **1** through step **4** to set the remaining edit points for each VCR.

**To restore the original edit points after modifying them**
Press the LAST X (=SHIFT + DUR) button in the AUTO CONTROL section.

## Setting edit points with the numeric keypad

If you already know the time codes for the frames you want to set, you can enter the codes manually using the numeric keypad. Enter two out of the following three: time codes for the IN and OUT edit points, and the duration.




Setting edit points with the numeric keypad

**1** Select a VCR by pressing a button (P1, P2 or R-VTR) in the SOURCE section.

- The source button lights. The IN and OUT indicators next to the time counter display for that VCR begin to flash.
- If you have already set an IN point, the IN indicator will be lit. If you have already set an OUT point, the OUT indicator will be lit. In this case, you can update the edit points by executing steps **2**, **3** and **4**.

**Status display**
Shows * in front of the selected VCR.

**2** In the TIME MARK section, press the SET IN (=SHIFT + MARK IN) button, the SET OUT (=SHIFT + MARK OUT) button, or the SET DUR button. The units enters numeric keypad mode and all of the numeric keys light.

**SET IN (=SHIFT + MARK IN):** Press this button to set an IN point. The SET IN indicator lights.
**SET OUT (=SHIFT + MARK OUT):** Press this button to set an OUT point. The SET OUT indicator lights.
**SET DUR:** Press this button to set the duration. The SET DUR button lights.

**Status display**
Shows " : : : " in the time code area for the selected VCR, and "SET IN", "SET OUT" or "SET DUR" in the time code data type area.

**3** Using the numeric keypad, enter the time code of an IN or OUT point, or the duration (up to eight digits).

**Note**

The most significant digits are automatically initialized to '0', so you don't need to enter all eight digits. For example, to enter the data "00 hours, 00 minutes, 35 seconds, 24 frames" you can skip the 0000 representing hours and minutes and enter only 3524.

**Status display**
The number is displayed as you enter it in the selected VCR's time code area.

**4** Press the ENT key in the numeric keypad section.
The IN point, OUT point or duration data entered in step **3** is confirmed. For an IN point, the IN indicator next to the time counter lights. For an OUT point, the OUT indicator lights. For a duration, both the IN and OUT indicators light. As soon as you press the ENT key, the unit leaves numeric keypad mode.

**Status display**
The time code data type area changes as follows.
- "SET IN" → "IN/– – –".
- "SET OUT" → "– –/OUT".
- "SET DUR" → "IN/OUT" (if an IN or OUT point has been set)
  → "– –/– – –" (if no IN or OUT point has been set)

**5** Repeat steps **1** through step **4** to set the remaining edit points for each VCR.

**To specify a duration for auxiliary source 1**
In step **1**, press the AUX button in the SOURCE section, and in step **2** press the SET DUR button.

**Notes**

- When you press the AUX button, "R-VTR" in the bottom line of the status display changes to "AUX".
- IN points are set automatically for auxiliary source 1.
- The SET IN (=SHIFT + MARK IN) and SET OUT (=SHIFT + MARK OUT) buttons have no effect for auxiliary source 1.

**Using special keys in the numeric keypad**
**00 key:** Allows you to enter two zeros at once.
**BS key:** Erases the digit currently displayed in the last column of the time counter display.
**CLR key:** Erases all of the digits displayed in the time counter display.

**To exit numeric keypad mode immediately**
Press the CLEAR button in the AUTO CONTROL section.

**To restore the original data**
Press the LAST X (=SHIFT + DUR) button in the AUTO CONTROL section.

## Relation Between IN/OUT Points and Duration

As soon as you enter two out of the three values (IN point, OUT point, and duration), the unit automatically calculates the third.
When you change one of the values, the other two are adjusted according to the following precedence table. Items with higher numbers have lower precedence, and are the first to be adjusted.

1. Manually set IN point
2. Manually set OUT point
3. Manually or automatically set duration
4. Automatically set IN point
5. Automatically set OUT point

For example, when IN and OUT points have been set manually, and the duration is incremented by three frames using the SET DUR button and the numeric keypad. the OUT point is automatically incremented by three frames while the IN point remains unchanged.

| | | | |
|---|---|---|---|
| IN point | 00:01:02:03 (manual) | Duration increased by three frames → | 00:01:02:03 (no change) |
| OUT point | 00:01:04:03 (manual) | | 00:01:04:06 (automatic) |
| Duration | 00:00:02:00 (automatic) | | 00:00:02:03 (manual) |

The IN point remains unchanged, but the OUT point is automatically incremented by three frames.

**Note**

A period (.) appears after "IN", "OUT" or "DUR" in the status display to indicate that edit time data has been calculated automatically. This can be verified at any time by selecting a VCR and pressing the IN, OUT or DUR button to display the time data.

### Relation between IN/OUT points and duration in DMC editing

When the tape is running at normal speed, the duration is equal to the OUT point minus the IN point. In DMC editing, however, this relationship does not hold unless the DMC initial speed (the speed of DT playback at the IN point) is set to +1 times normal speed.

| **Example 1:** If a duration of 2 seconds is set manually when DMC initial speed is +1/2 (+50%) times normal speed. | | |
|---|---|---|
| IN point | 00:01:02:03 | Set manually |
| OUT point | 00:01:03:03 | Calculated value = IN point + 2 seconds × 1/2 normal speed |
| Duration | 00:00:02:30 | Set manually |

| **Example 2:** If an OUT point is set manually at a point 2 seconds beyond the IN point when DMC initial speed is +1/2 (+50%) times normal speed. | | |
|---|---|---|
| IN point | 00:01:02:03 | Set manually |
| OUT point | 00:01:04:03 | Set manually |
| Duration | 00:00:04:00 | Calculated value = 2 seconds + 1/2 normal speed |

1-44



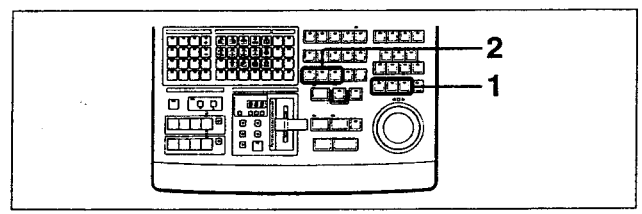
# Checking, Cuing Up, Changing and Deleting Edit Points

This section explains how to check edit points, and how to change them after a preview.

*For information about how to change or check edit points which have been registered in the EDL, see Chapter 7.*

### Checking edit points

Proceed as follows to check edit points and durations.




Checking edit point data

**1** Select a VCR by pressing the appropriate button (P1. P2 or R-VTR) in the SOURCE section.

**2** Depending upon the type of data you want to check, press the IN button, the OUT button or the DUR button in the AUTO CONTROL section, turning it on.

- If you pressed the IN or OUT button, the IN or OUT indicator next to the time counter display for the selected VCR lights. If you pressed the DUR button, both the IN and OUT indicators light. The edit point or duration is displayed on the main monitor and in the corresponding time counter display.

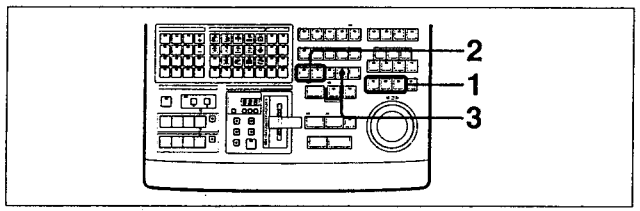
  **Note**

  A period (.) appears after "IN", "OUT" or "DUR" in the status display to indicate that edit time data has been calculated automatically. This can be verified at any time by selecting a VCR and pressing the IN, OUT or DUR button to display the time data.

- If an IN or OUT point has not yet been set, the corresponding indicator begins to flash and the time counter display shows "– – : – – : – – : – –".

## Cuing up the tape to an edit point

You can view the scene which appears at a given edit point by cuing up the tape to that point. Proceed as follows.




Cuing up an edit point

**1** Select a VCR by pressing the appropriate button (P1, P2 or R-VTR) in the SOURCE section.

**2** To cue up an IN point, press the IN button in the AUTO CONTROL section, turning it on. To cue up an OUT point, press the OUT button.

The time code for the specified edit point appears in the main monitor status display and in the time counter display for that VCR.

**3** Press the GO TO button in the AUTO CONTROL section, turning it on. The tape is cued up to the specified point for the specified VCR. Monitors display still playback. "GO TO" appears in the main monitor status display.

**4** Repeat steps **1** to **3** to cue up edit points for other VCRs.

**If you press the GO TO button without pressing the IN or OUT button**
The tape is cued up to the IN point.

## Changing edit points

There are two ways to change an already set edit point.

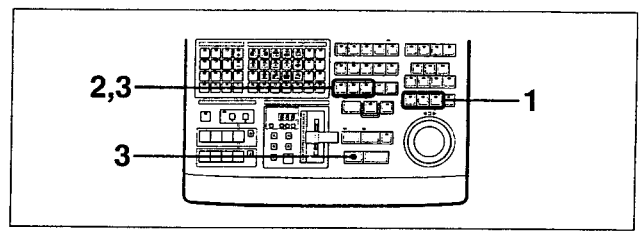
- Set the edit point again.

*For details, see "Setting Edit Points" (page 5-13).*

- Trim the edit point data.

Proceed as follows to trim edit point data.

### Using the TRIM+ and TRIM– buttons in the AUTO CONTROL section



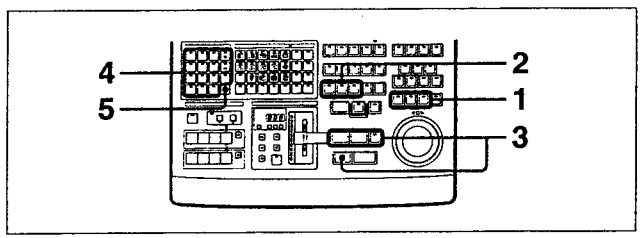

Trimming edit points with the TRIM+ and TRIM– buttons

**1** Select a VCR by pressing the appropriate button in the SOURCE section.

**2** Press the IN, OUT, or DUR button in the AUTO CONTROL section to display the value you want to change in the corresponding time counter display.

**3** In the AUTO CONTROL section, press the TRIM+ (=SHIFT + IN) button, or the TRIM– (=SHIFT + OUT) button.
**TRIM+ (=SHIFT + IN):** Each time you press the button, the value increases by one frame.
**TRIM– (=SHIFT + OUT):** Each time you press the button, the value decreases by one frame.

### Trimming edit points with the numeric keypad




Trimming edit points with the numeric keypad

**1** Select a VCR by pressing the appropriate button in the SOURCE section.

**2** Press the IN, OUT, or DUR button in the AUTO CONTROL section to display the value you want to change in the corresponding time counter display.

**3** Depending upon the type of data, press the SET IN (=SHIFT + MARK IN) button, the SET OUT (=SHIFT + MARK OUT) button, or the SET DUR button in the TIME MARK section, putting the unit into numeric keypad mode.

**SET IN (=SHIFT + MARK IN):** To change IN point data. The SET IN indicator lights.
**SET OUT (=SHIFT + MARK OUT):** To change OUT point data. The SET OUT indicator lights.
**SET DUR:** To change the duration. The SET DUR button lights.

**4** To increment the data, press the '+' key in the numeric keypad, or press the '–' key to decrement it. Then use the numeric keys to input the desired value (in frames).

**Note**

You can also enter the value before incrementing or decrementing it with the '+' and '–' keys.

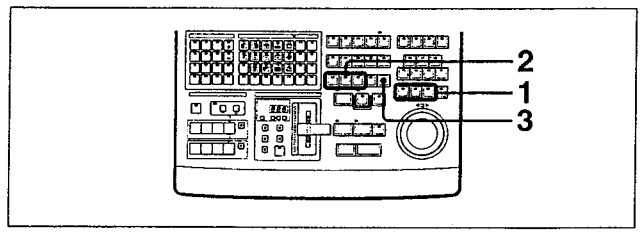
**5** Press the ENT key.
The changed data is confirmed, and the unit leaves numeric keypad mode.

**To return changed edit points to their original values**
Press the LAST X (=SHIFT + DUR) button in the AUTO CONTROL section.

## Deleting edit points

There are two ways to delete edit points.
- Press the CLEAR button in the AUTO CONTROL section.
- Use the numeric keypad.

### Deleting edit points with the CLEAR button




Deleting edit points with the CLEAR button

**1** Select a VCR by pressing the appropriate button in the SOURCE section.

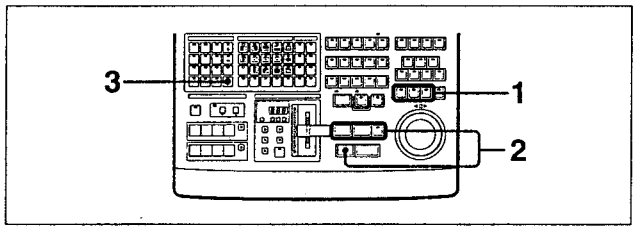
**2** Press the IN, OUT, or DUR button in the AUTO CONTROL section to display the value you want to delete in the corresponding time counter display.

**3** Press the CLEAR button in the AUTO CONTROL section.
The data is deleted. The IN or OUT indicator in the time counter display panel begins to flash, and "– – : – – : – – : – –" is displayed in the time counter display.

1-46

## Setting Edit Points

### Deleting edit points with the numeric keypad




Deleting edit points with the numeric keys

**1** Select a VCR by pressing the appropriate button in the SOURCE section.

**2** In the TIME MARK section, press the SET IN (=SHIFT + MARK IN) button, the SET OUT (=SHIFT + MARK OUT) button, or the SET DUR button, putting the unit into numeric keypad mode.

**SET IN (=SHIFT + MARK IN):** To delete an IN point. The SET IN indicator lights.
**SET OUT (=SHIFT + MARK OUT):** To delete an OUT point. The SET OUT indicator lights.
**SET DUR:** To delete the duration. The SET DUR button lights.

**3** Without entering any numeric data, press the ENT button in the numeric keypad.
The data is deleted. The IN or OUT indicator in the appropriate time counter display panel begins to flash, and "– – : – – : – – : – –" is displayed in the time counter display.

### To restore a deleted edit point

Press the LAST X (=SHIFT + DUR) button in the AUTO CONTROL section.

1-47



# Selecting Special Effects

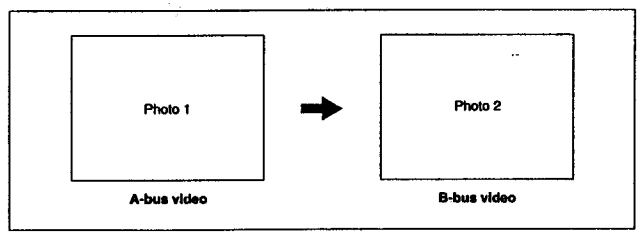
You can choose from among four kinds of special effects to switch between or combine two video signals: cut, dissolve, wipe, and key.

This section will describe how to select and combine these effects. Note that the descriptions assume that transitions begin with the fader lever, AUDIO FOLLOW button and transition indicators in the following state.

**Fader lever:** Pushed all the way toward side A.
**AUDIO FOLLOW button:** Lit
**Transistion indicators:** Topmost indicator on side A is lit, and all others are off.

## Cut

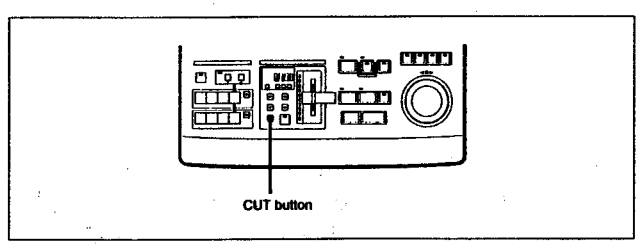
Cut is an effect which switches instantly between two video signals.
If there are audio inputs to the buses, they are cut in synchronization with the video signals.




Cut

### Executing the cut effect

To excute a cut, wait for the desired scene and then press the CUT button in the EFFECT TRANSITION section. The cut takes place immediately.




Executing a cut

**Notes**

- When using effects such as wipe and dissolve, you can still get a cut effect by pressing the CUT button. The cut takes place as as soon as you press the button.
- In A/B roll editing, set the transition time to 0.

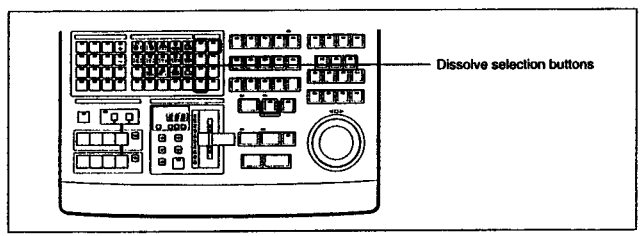
*For details, see "Setting the Transition Time" (page 5-58).*

# Dissolve

Dissolve (or mix) is a cross-fade effect which fade outs A-bus video while fading in B-bus video. Midway through the transition, video signals from both buses overlap.
If there are audio inputs to the buses, they are cross-faded in synchronization with the video cross-fade.

## Selecting a dissolve effect

Press one of the NORMAL MIX, MOSAIC MIX, POSTRZ MIX, B&W MIX and LUMINA CLIP TRANS buttons in the MIX/EFFECT section.



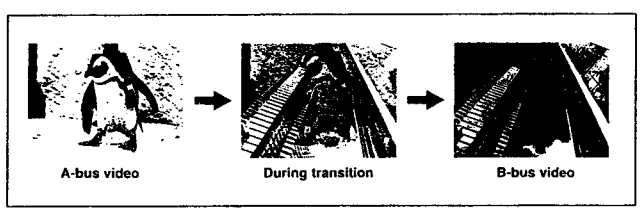

Selecting a dissolve effect

## Dissolve types

The types of effect selectable with the dissolve selection buttons are as follows.

### NORMAL MIX button

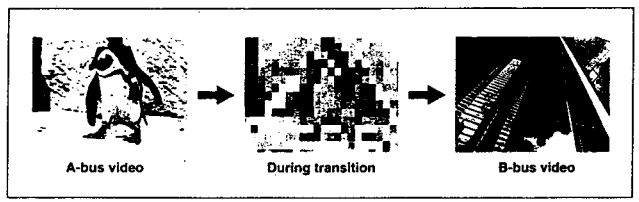
This button selects a standard dissolve effect.




NORMAL MIX dissolve

### MOSAIC MIX button

A mosaic pattern appears during the transition.




MOSAIC MIX dissolve

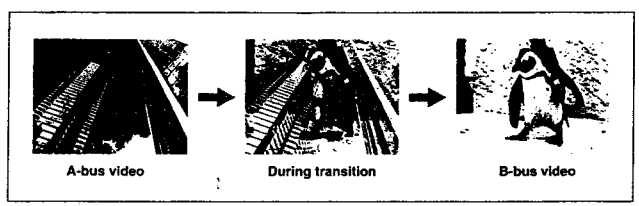
To cancel a mosaic mix, press the NORMAL MIX button.

**Note**

Mosaic mix cannot be combined with the following input effects.
- Multi-screen (MULTI) (*page 5-47*)
- Multi-screen 2 (MULTI 2) (*page 5-47*)
- Mosaic (MOSAIC) (*page 5-55*)
- Zoom (ZOOM) (*page 5-53*)

### POSTRZ (posterization) MIX button

During the transition, hues are simplified by quantizing brightness to the levels 16→8→4→8→16, for a poster-like effect.




POSTRZ MIX dissolve

To cancel a posterization mix, press the NORMAL MIX button.

**Note**

A posterization mix cannot be combined with the posterization input effect (*page 5-50*).

**B&W MIX button**
During the transition, the image changes to black and white before returning to color.
To cancel a B&W mix, press the NORMAL MIX button.

**LUMINA (luminance) CLIP TRANS (transition) button**
This effect provides one type of luminance key. As the transition proceeds, portions of B-bus video of progressively increasing brightness are replaced by the corresponding portions of A-bus video.
If the REVERSE button in the EFFECT TRANSITION section is lit, the brighter portions of A-bus video are inserted first, followed by the darker portions.
To cancel the luminance clip transition effect, press the NORMAL MIX button, or press the LUMINA CLIP TRANS button once more.



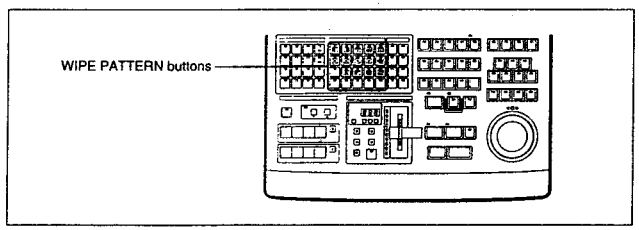


# Wipe

A wipe is an effect which uses a geometrical pattern to replace A-bus video with B-bus video.
If there are audio inputs to the buses, they are cross-faded as the video wipe progresses.

## Selecting a wipe effect

Press one of the buttons in the WIPE PATTERN section, turning it on.



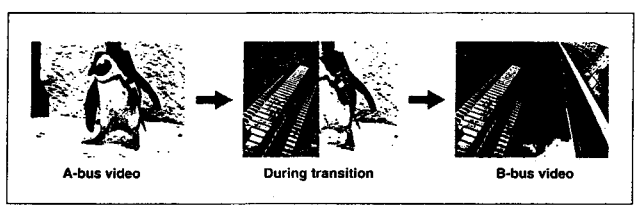

Selecting a wipe effect

## Wipe patterns

The wipe patterns selectable with the buttons in the WIPE PATTERN section are as follows.

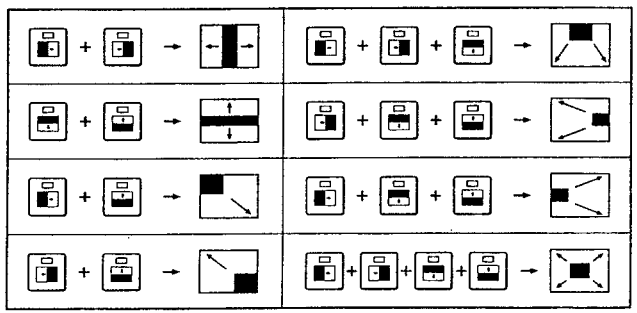
**Horizontal and vertical wipe buttons ( ).**
B-bus video appears on the edge of A-bus video. The pattern (B-bus video) expands in the direction indicated by the arrow, replacing A-bus video.

Example: Wipe selected with button




Wipe selected with button

A variety of patterns can be created by pressing more than one of the horizontal and vertical wipe buttons. Following are some examples.



Combined horizontal and vertical wipe patterns

**Notes**

- You can change the position of the pattern ( ) created by pressing all four of the buttons or by pressing the button.

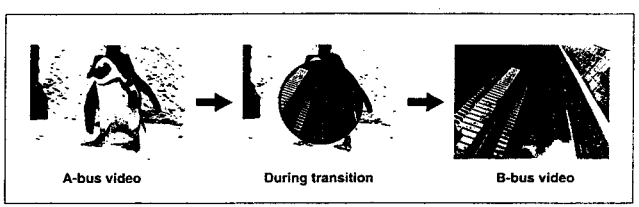
  *For details, see "Changing the pattern position" (page 5-38).*

- When two or more of the horizontal/vertical wipe buttons are lit, cancel a pattern selection by pressing the appropriate button, turning it off.

### buttons

B-bus video appears in the center of A-bus video, and replaces A-bus video as the pattern expands.

Example: Wipe selected with button




Wipe selected with button

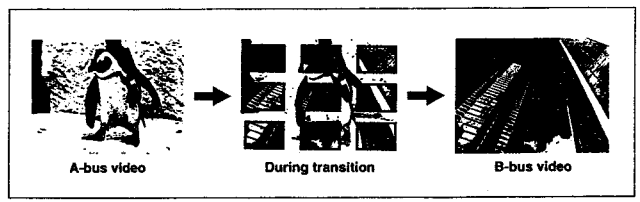
**Note**

You can change the position of these patterns.

*For details, see "Changing the pattern position" (page 5-38).*

### button

A-bus video is divided into a 3 by 3 grid, and B-bus video appears in center of each of the small blocks, expanding to replace A video.



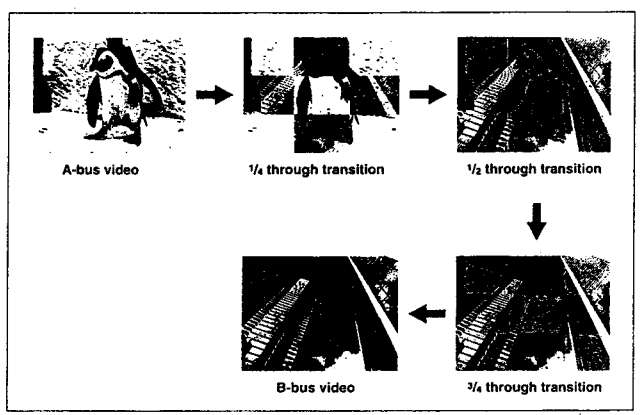

Wipe selected with button

**Note**

You can use this wipe in combination with the multi-screen input effect (MULTI, MULTI 2 buttons).

### button

B-bus video appears as thin stripes in four locations, and expands to the right. At a stage 1/4 of the way through the transition, the screen is divided into a 3 by 3 grid, like the pattern shown on the button. Subsequent stages are shown below.



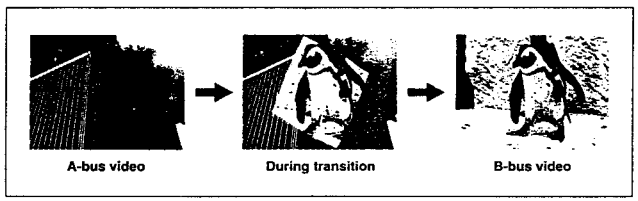

Wipe selected with button

**Note**

This wipe can be combined for impressive effects with the multi-screen input effect (MULTI, MULT2 buttons).

### button

B-bus video appears in the center of A-bus video, and replaces A-bus video as the pattern expands. During the transition the square pattern rotates in a clockwise direction.




Wipe selected with button

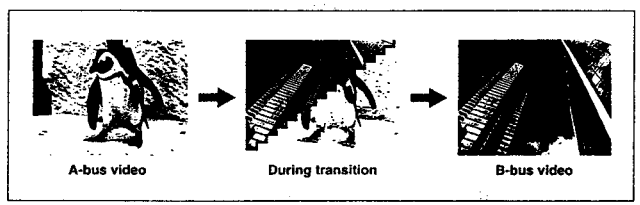
**Note**

You can change the position of this pattern.

*For details, see "Changing the pattern position" (page 5-38).*

### button

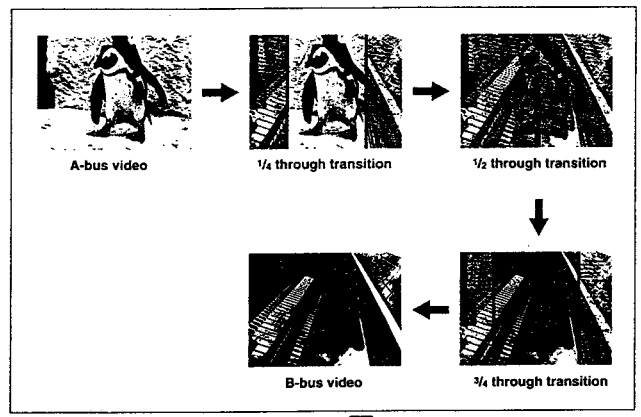
B-bus video appears in the upper left corner of A-bus video, and replaces A-bus video as the zigzag border moves toward the lower right.




Wipe selected with button

### button

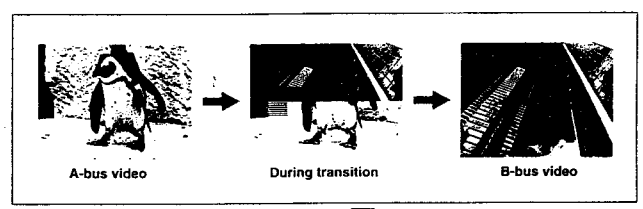
B-bus video appears as thin stripes on the left and right sides of A-bus video, and replaces A-bus video as the stripes move toward the center. Halfway through the transition, the stripes meet in the center of the screen. Subsequent stages are shown below.




Wipe selected with button

### button

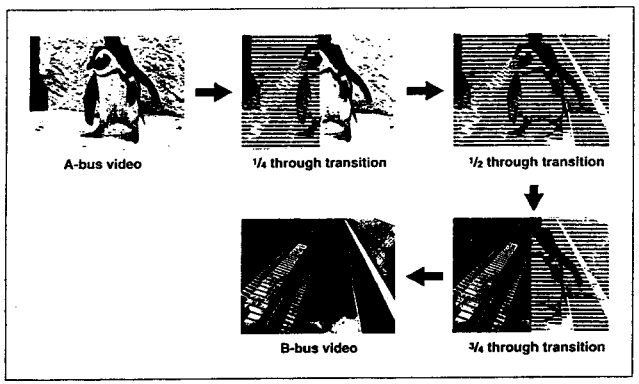
A striped band appears in the upper left corner of A-bus video. B-bus video replaces A-bus video as the band snakes through the screen in the direction shown by the arrow.




Wipe selected with button

### SPLIT SLIDE button

Stripes of B-bus video appear at the edge of A-bus video, and reach the opposite side halfway through the transition. As the transition progresses, stripes of A-bus video begin to slide off the screen, finally leaving only B-bus video.




Wipe selected with the SPLIT SLIDE button

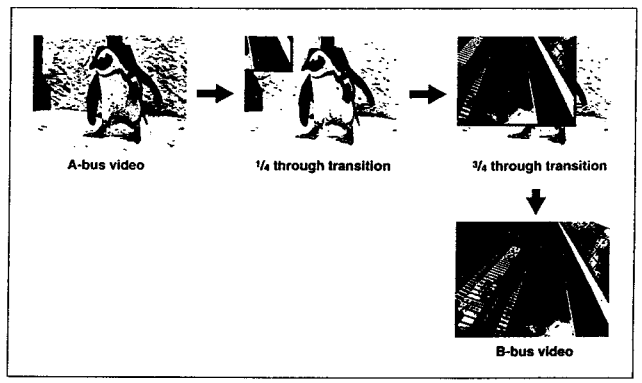
**Notes**

- The direction of the slide can be changed with the horizontal/vertical wipe buttons ( ).
- A split slide can be combined with a scroll wipe (*page 5-37*), although the combined transition may not be as smooth as a normal transition.

*For details, see "Selecting the wipe direction" (page 5-39).*

### SLIDE IN button

B-bus video slides in, replacing A-bus video.




Wipe selected with the SLIDE IN button

**Notes**

- The direction of the slide can be changed with the horizontal/vertical wipe buttons ( ).

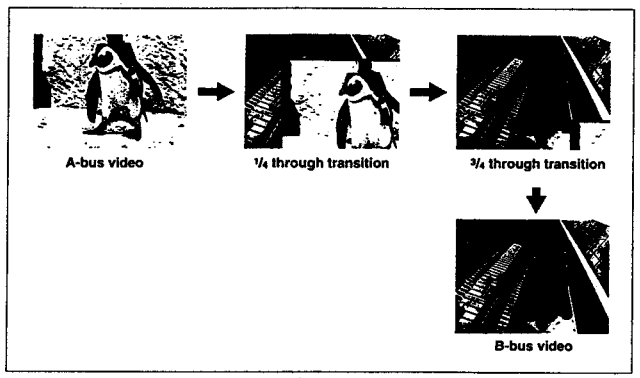
*For details, see "Selecting the wipe direction" (page 5-39).*

- The transition in the slide in effect may not always be as smooth as a normal transition.
- The slide in effect cannot be combined with the mosaic (*page 5-55*) and zoom (*page 5-53*) input effects.

1-52

### SLIDE OUT button

A-bus video slides out, leaving B-bus video.




Wipe selected with the SLIDE OUT button

**Notes**

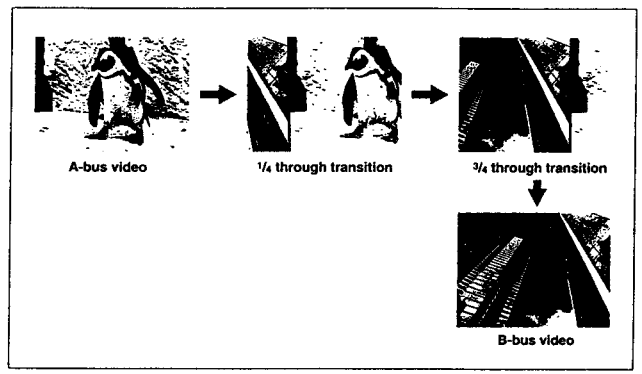
- The direction of the slide can be changed with the horizontal/vertical wipe buttons ( ).

  *For details, see "Selecting the wipe direction" (page 5-39).*

- The transition in the slide out effect may not always be as smooth as a normal transition.
- The slide out effect cannot be combined with the mosaic (*page 5-55*) and zoom (*page 5-53*) input effects.

### SCROLL button

B-bus video slides in, while A-bus video slides out.




Wipe selected with the SCROLL button

**Notes**

- The direction of the scroll can be changed with the horizontal/vertical wipe buttons ( ).

  *For details, see "Selecting the wipe direction" (page 5-39).*

- The transition in the scroll effect may not always be as smooth as a normal transition.
- The scroll effect can be combined with a split slide wipe (*page 5-34*).
- The scroll effect cannot be combined with the mosaic (*page 5-55*) and zoom (*page 5-53*) input effects.

### USER 1 and USER 2 buttons

Frequently used patterns can be assigned to these buttons, using item 201 WIPE PATTERN in the setup menu.

*For details, see Chapter 8.*

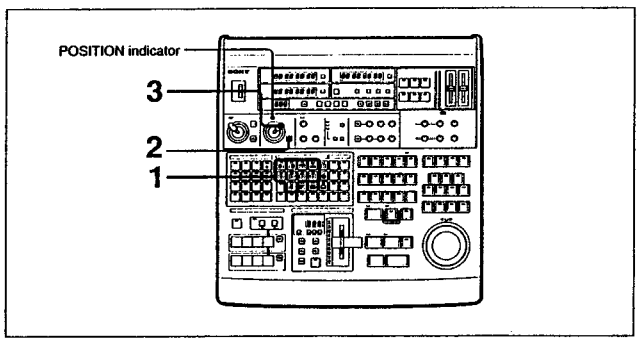
1-53

## Changing the pattern position

You can change the center positions of the following patterns.

- Patterns selected with the [ ] [ ] [ ] [ ] [ ] buttons.
- The pattern ( [ ] ) obtained by pressing and lighting all of the [ ] [ ] [ ] [ ] buttons.

To change the positions, proceed as follows.




Changing a pattern position

**1** Select a pattern with a button in the WIPE PATTERN section.
The POSITION indicator lights.

**2** Press the POSITION ON/OFF button.
The button lights, and the POSITION joystick is enabled.

**3** While viewing the monitor, move the joystick to adjust the pattern position.

### To restore the original pattern position

Press the POSITION ON/OFF button, turning it off.

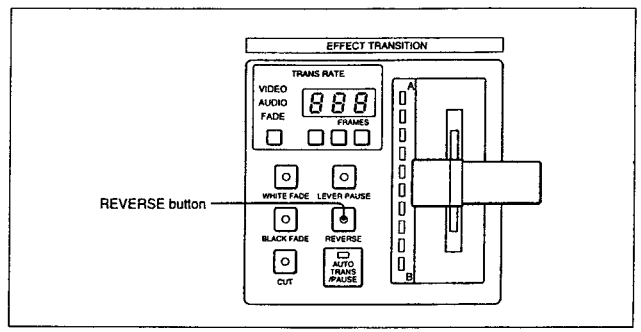
**Notes**

- The POSITION ON/OFF button should normally be off, except when you are intentionally changing a pattern position.
- When the POSITION ON/OFF button is on, some wipe patterns are slightly larger than normal.

## Selecting the wipe direction

### To reverse the wipe direction

Press the REVERSE button in the EFFECT TRANSITION section, turning it on.



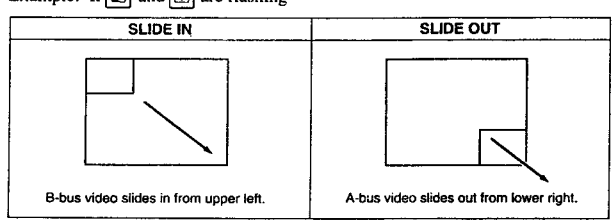

To reverse the wipe direction

### To change the direction of a specific wipe

When using effects selected with the SPLIT SLIDE, SLIDE IN, SLIDE OUT and SCROLL buttons, the horizontal and vertical wipe buttons ( [ ] [ ] [ ] [ ] ) may be used to change the direction.

- **SPLIT SLIDE and SCROLL**
  Press one of the horizontal or vertical wipe buttons, so that it begins to flash.
- **SLIDE IN and SLIDE OUT**
  Press one of the horizontal or vertical wipe buttons, so that it begins to flash.
  If you press one each of the horizontal wipe buttons ( [ ] [ ] ) and the vertical wipe buttons ( [ ] [ ] ), the direction becomes a slant.

Example: If [ ] and [ ] are flashing

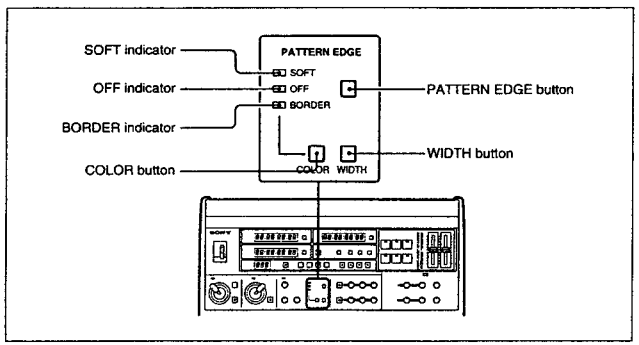



**Notes**

- To extinguish a flashing horizontal or vertical wipe button, press it once more.
- If you select a slide or scroll wipe with one of the horizontal or vertical wipe buttons, and then select another wipe or mix by pressing the SPLIT SLIDE, SLIDE IN, SLIDE OUT or SCROLL button, the most recently pressed horizontal or vertical wipe button starts to flash.

## Adjusting pattern edges

Except in the case of wipes selected with the [▦], [▦] and [▦] buttons, it is possible to adjust the pattern edge at the border between A-bus and B-bus signals. Use the controls in the PATTERN EDGE section.




Adjusting pattern edges

### To make the edge softer

Press the PATTERN EDGE button, lighting the SOFT indicator.

### To make the edge sharper

Press the PATTERN EDGE button, lighting the OFF indicator.

### To give the edge a colored border

Press the PATTERN EDGE button, lighting the BORDER indicator, and then press the COLOR button to select one of the 15 border colors. The colors change in the opposite order if you hold down the SHIFT button while pressing the COLOR button.

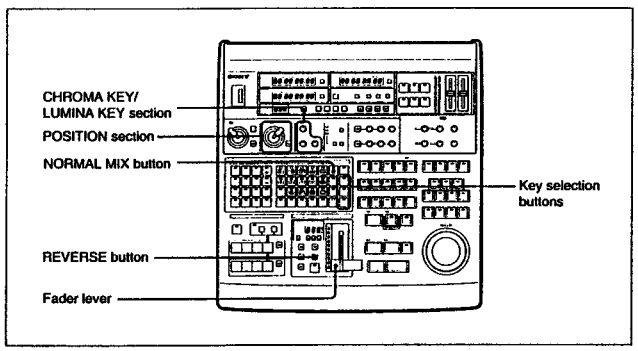
### To change the border width

Press the PATTERN EDGE button, lighting the BORDER indicator, and then press the WIDTH button to change the width in three steps.

# Key

This effect removes certain portions of B-bus video, replacing them with A-bus video.

The following controls are used in key effect operations.




Key effect controls

## Selecting a key effect

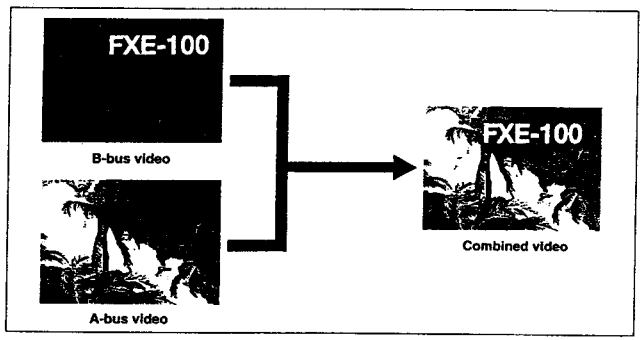
To select a key effect, pull the fader lever all the way down to the B side and press one of the key selection buttons (LUMINA KEY, CHROMA KEY or P IN P) in the MIX/EFFECT section, turning it on.

## Key types

The effects selectable with the key selection buttons are as follows.

### LUMINA (luminance) KEY button

Portions of B-bus video whose luminance (brightness) is equal to or higher than a specified reference level are replaced by A-bus video.




Luminance key

The reference luminance level is specified using knobs in the CHROMA KEY/ LUMINA KEY section.

- For bright sections of the video, use the CLIP/CLIP HIGH knob.
- For dark sections, use the GAIN/CLIP LOW knob.

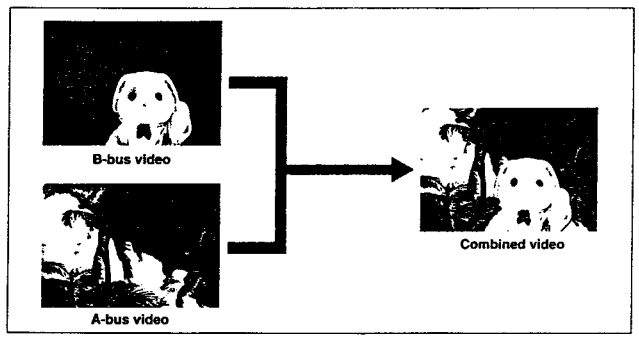
To cancel the luminance key effect, press the NORMAL MIX button, or press the LUMINA KEY button once more.

**Note**

The luminance key effect can be used in combination with SLIDE IN or SLIDE OUT wipes.

### CHROMA KEY button

Portions of B-bus video of a specified color are replaced by A-bus video.




Chroma key

The reference color is specified using knobs in the CHROMA KEY/LUMINA KEY section.

- Specify the hue with the HUE knob.
- Specify the saturation with the CLIP/CLIP HIGH knob.
- To adjust the brightness of the inserted video (A-bus video), use the GAIN/CLIP LOW knob.

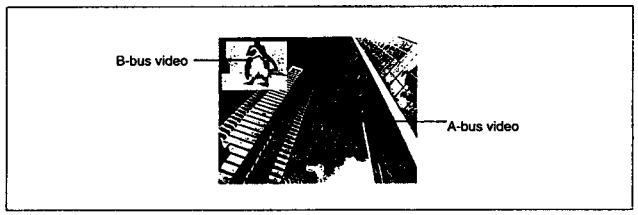
To cancel the chroma key effect, press the NORMAL MIX button, or press the CHROMA KEY button once more.

**Note**

When the chroma key effect is selected, the zoom input effect cannot be applied to B-bus video.

1-56

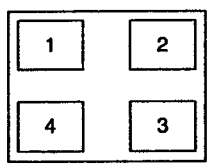
**P IN P (picture-in-picture) button**
B-bus video is reduced to 1/3 normal size both horizontally and vertically, and inserted into A-bus video.




Picture in picture

There are two ways to specify the position at which B-bus video will be inserted.

- Press the lit P IN P button while holding down the SHIFT button.




Each time the button is pressed, B-bus video changes position in the order 1→2→3→4→1...
(In the actual picture, the reduced video will be slightly further left than the positions shown.)

- Press the POSITION ON/OFF button in the POSITION section, turning it on, and adjust the position with the POSITION joystick.

To cancel the picture-in-picture effect, press the NORMAL MIX button or press the P IN P button once more.

**Notes**

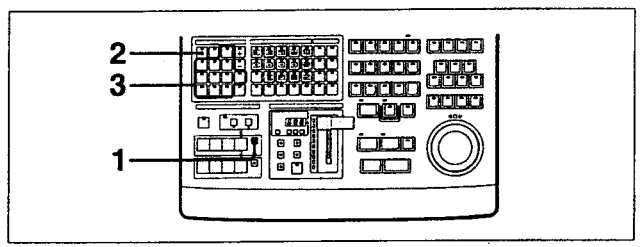
- When the P IN P button is lit, wipe patterns selected with the [1], [2], [3] and [4] buttons appear in the reduced video.
- Picture-in-picture video consists of a single field, so the B-BUS and FIELD/FRAME buttons in the INPUT EFFECT section light automatically when the P IN P button is lit.
- When the P IN P button is lit, the following input effects cannot be applied to B-bus signals.
  - Multi-screen (MULTI) (*page 5-47*)
  - Multi-screen 2 (MULTI 2) (*page 5-47*)
  - Mosaic (MOSAIC) (*page 5-55*)
  - Zoom (ZOOM) (*page 5-53*)
  - Picture trail (PIX TRAIL) (*page 5-49*)

## Input Effects

In addition to video switching effects such as wipes, you can apply digital effects to bus signals with the buttons in the INPUT EFFECT section. These effects may be applied independently to bus A and bus B.

Proceed as follows to select digital effects for each bus.

### Example: Selecting input effects for bus A




Selecting digital effects for bus A

**1** Press the A-BUS INPUT EFFECT ON/OFF button in the VIDEO INPUT SELECT section, turning it on.

**2** Press the A-BUS button in the INPUT EFFECT section, turning it on.

**3** Press the INPUT EFFECT button corresponding to the desired effect. You can press several buttons for combined effects.

*For more information about combined effects, see "Combined input effects" (page 5-56).*

Follow the same procedure to select input effects for B-bus video.

**Note**

If setup menu item 306 INPUT EFFECT AUTO SELECT has been set to ON, input effects are applied automatically to the bus selected by the fader lever. The A-BUS and B-BUS buttons in the INPUT EFFECT section are disabled and do not light when pressed.

*For details, see Chapter 8.*

1-57

## Freeze

This effect reads a video frame into a frame memory buffer, and outputs a still picture (freeze frame) consisting of the contents of frame memory. Digital effects such as monotone and mosaic may be applied to the frame memory output.

### To select the freeze effect

Press the FREEZE button, turning it on.

### About frame freeze and field freeze

When the FREEZE button lights, the FRAME/FIELD button lights automatically. While it is lit, the freeze video output consists of a single field (the first of the two fields in the frame), which may reduce blurring if there is rapid motion in the picture.

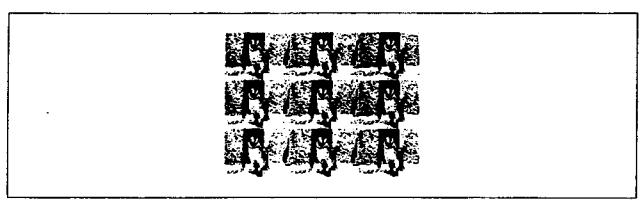
To select output of a complete frame (two fields), press the FRAME/FIELD button, turning it off.

### To return to normal playback

Press the FREEZE button, turning it off, or press the RESET button, turning it on.

## Multiple screens

The screen is split into a 3 by 3 grid, with reduced video in each window.



Multiple screens



### To select the multi-screen effect

Press the MULTI or MULTI 2 button.

The button lights, and moving video reduced to 1/3 normal size both vertically and horizontally appears in the upper left corner.

- You can change the position of the moving video by pressing the '+' and '–' keys in the numeric keypad.
- Multi-screen effects can be combined with the strobe effect.

### When the '+' and '–' keys are pressed

**When the MULTI button is lit**

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

+ key

When the '+' key is pressed for the first time, the video in block 1 changes to a still picture and the video in block 2 begins to move. Each time the key is pressed, the moving video moves to the next block, in the order shown at left. When the moving video reaches block 9, pressing the '+' key stops motion in all blocks. Press it again and the video in block 1 starts to move.

| | | |
|---|---|---|
| 1 | 9 | 8 |
| 7 | 6 | 5 |
| 4 | 3 | 2 |

– key

When the '–' key is pressed for the first time, the video in block 1 changes to a still picture and the video in block 2 begins to move. Each time the key is pressed, the moving video moves to the next block, in the order shown at left. When the moving video reaches block 9, pressing the '–' key makes the video in block 1 start to move. Press it again and the video stops in all blocks.

**When the MULTI 2 button is lit**

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 8 | 9 | 4 |
| 7 | 6 | 5 |

+ key

The effect is the same as the MULTI effect, except that the order is as shown at left.

| | | |
|---|---|---|
| 1 | 9 | 8 |
| 3 | 2 | 7 |
| 4 | 5 | 6 |

– key

The effect is the same as the MULTI effect, except that the order is as shown at left.

### When the STROBE button is pressed

**When the MULTI button is lit**

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 4 | 5 | 6 |
| 7 | 8 | 9 |

STROBE plus MULTI effect

Pressing the STROBE button while the MULTI button is lit causes the blocks shown at left to change to still video, one after the other in the order shown. When block 9 is reached, new still pictures begin to appear from the upper left block in the order 1→2→3..., repeating the process indefinitely until the STROBE button is pressed once more, turning it off.
The '+' and '–' keys can be used to adjust the strobe interval. Pressing the '+' key increases the interval and pressing the '–' key decreases it. When the maximum or minimum interval is reached, the '+' or '–' key begins to flash.

**When the MULTI 2 button is lit**

| | | |
|---|---|---|
| 1 | 2 | 3 |
| 8 | 9 | 4 |
| 7 | 6 | 5 |

STROBE plus MULTI 2 effect

Pressing the STROBE button while the MULTI 2 button is lit causes the blocks shown at left to change to still video, one after the other in the order shown. The strobe effect ends when block 9 is reached. Block 9 changes to a moving picture, and the other 8 blocks remain as still pictures.
You can adjust the strobe interval with the '+' and '–' keys before you execute an edit using this effect.

### To return to normal playback

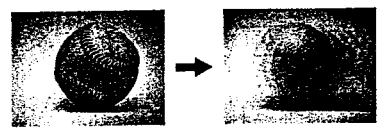
Press the MULTI or MULTI 2 button, turning it off, or press the RESET button, turning it on.
After returning to a normal picture, the MULTI or MULTI 2 button can be pressed again to recall the most recent multi-screen picture. The button lights, and a moving picture automatically appears in the most recently moving block.

**Notes**

- The multi-screen effect can be combined with wipes selected with the [ ] and [ ] buttons (*page 5-31*), for impressive multi-screen wipes.
- The multi-screen effect cannot be combined with the mosaic mix effects (*page 5-27*). Nor can it be applied to the reduced picture (B-bus video) in the picture-in-picture effect (*page 5-44*).

## Picture trail

This effect creates a trail of images behind a moving subject.



Normal video

Picture trail

### To select the picture trail effect

Press the PIX TRAIL button, turning it on.

### To return to normal playback

Press the PIX TRAIL button, turning it off, or press the RESET button, turning it on.

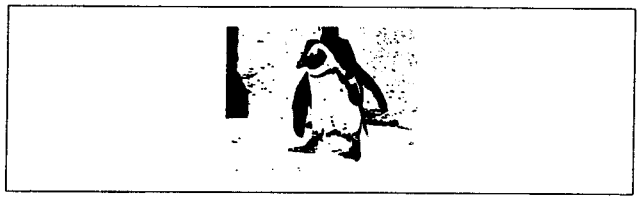
**Notes**

- It is not possible to adjust the length of time the trailing pictures remain visible.
- The picture trail effect cannot be applied to the reduced picture (B-bus video) in the picture-in-picture effect (*page 5-44*).

1-59

## Posterization

This effect produces a picture with simplified hues, like a poster. The picture is simplified by quantizing brightness to 16, 8 or 4 levels.



Posterization

### To select the posterization effect

Press the POSTRZ button, turning it on.

### To adjust the number of levels

To reduce the number of levels (increase the posterization effect), press the '+' key in the numeric keypad. To increase the number of levels, press the '–' key.

### To return to normal playback

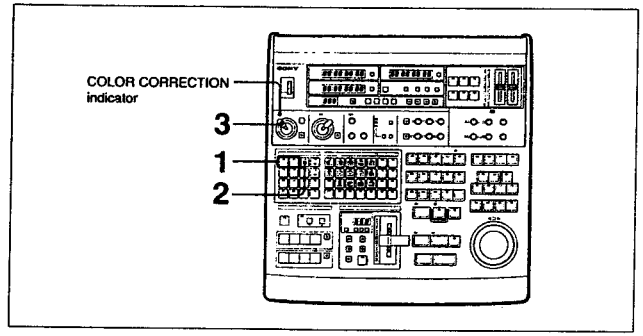
Press the POSTRZ button, turning it off, or press the RESET button, turning it on.

**Note**

The posterization input effect cannot be combined with a posterization dissolve.

## Color correction

By using the color balance controls, you can adjust the white balance and change the overall tonal balance of the picture. Proceed as follows.

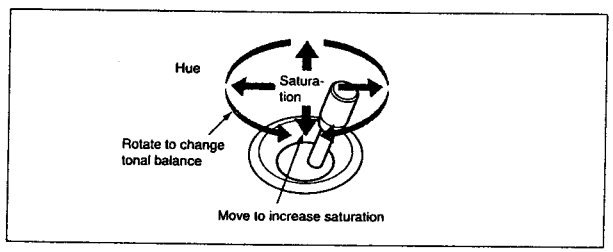



Performing color correction

**1** Select the object of the color correction by pressing the A-BUS button or B-BUS button in the INPUT EFFECT section.

**2** Press the COLOR CORRECT button in the INPUT EFFECT section, turning it on.
The COLOR CORRECTION indicator lights to show that the controls in the COLOR CORRECTION section are enabled.

**3** While viewing the monitor, move the joystick to perform color correction.




1-60

### About the correction range

The color correction range (sensitivity of the joystick) can be set to one of two steps under item 205 COLOR CORRECTION ADJUSTMENT WIDTH in the setup menu.

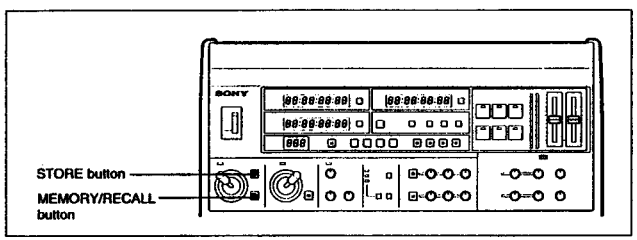
*For details, see Chapter 8.*

### When adjusting the white balance

Find a portion of the picture that should appear as pure white. Then, while viewing the monitor, move the joystick until the white portion is shown as pure white.

### To save the adjusted color values in memory

Press the STORE button together with the MEMORY/RECALL button.




Saving adjusted color values in memory

### To load adjusted values from memory

Press the MEMORY/RECALL button only, turning it on. To return to the state before the values were recalled, press the button once more, turning it off.

### To return to the original color balance

Press the COLOR CORRECT button, turning it off, or press the RESET button, turning it on.

## Monotone

This effect produces a monotone (monochrome) picture.

### To select the monotone effect

Press the MONOTONE button, turning it on.
Pressing the COLOR CORRECT button as well, turning it on, allows you to adjust the monotone color with the controls in the COLOR CORRECTION section.

### To return to normal playback

Press the MONOTONE button, turning it off, or press the RESET button.

## Strobe

This effect freezes the picture at selected frame intervals.

### To select the strobe effect

Press the STROBE button, turning it on.

### To select the frame interval

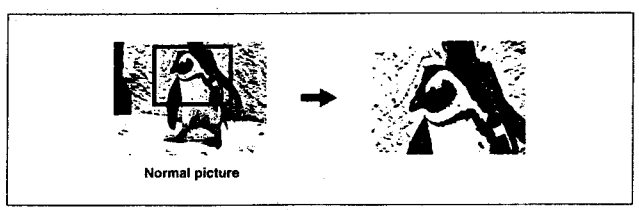
Press the '+' key in the numeric keypad to increase the frame interval, and the '–' key to decrease it. When the maximum or minimum interval is reached, the '+' or '–' key begins to flash.

### To return to normal playback

Press the STROBE button, turning it off, or press the RESET button, turning it on.

## Zoom

This effect expands a selected area of the picture to fill the entire screen.




Zoom

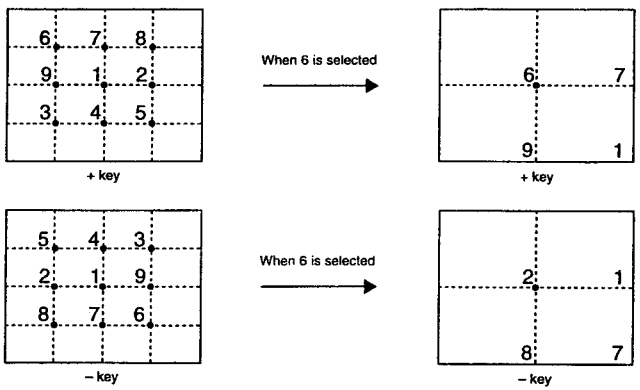
### To select the zoom effect

Press the ZOOM button, turning it on.

1-61

### To select the zoom center

Press the '+' or '–' key. Pressing the key selects a set of four zoom blocks, centered around the dots numbered 1 to 9 in the illustrations below. The four blocks around the dots are doubled in size vertically and horizontally.




(In the actual picture, zoom centers will be sightly to the left of the positions shown by the dots in the illustrations above.)

### To return to normal playback

Press the ZOOM button, turning it off, or press the RESET button, turning it on. If you press the ZOOM button again, the most recently selected blocks automatically expand to fill the screen.

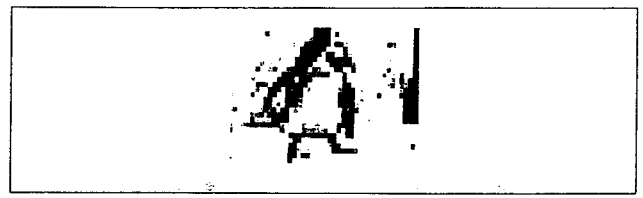
**Note**

The zoom effect cannot be combined with the following wipes.
- SLIDE IN (*page 5-35*)
- SLIDE OUT (*page 5-36*)
- SCROLL (*page 5-37*)

The zoom effect cannot be applied to the following kinds of video.
- The reduced picture (B-bus video) in the picture-in-picture effect (*page 5-44*).
- B-bus video in the CHROMA KEY effect (*page 5-43*).

## Mosaic

This effect applies a mosaic grid to the picture. The coarseness of the mosaic can be adjusted.



Mosaic

### To select the mosaic effect

Press the MOSAIC button, turning it on.

### To adjust the coarseness of the mosaic

Press the '+' key for a coarser grid, and the '–' key for a finer one. The coarseness can be adjusted in four steps. When the maximum or minimum level is reached, the '+' or '–' key begins to flash.

### To return to normal playback

Press the MOSAIC button, turning it off, or press the RESET button, turning it on.

**Note**

The mosaic effect cannot be combined with the following effects.
- MOSAIC MIX (*page 5-27*)
- SLIDE IN (*page 5-35*)
- SLIDE OUT (*page 5-36*)
- SCROLL (*page 5-37*)

1-62

## Combined input effects

You can combine input effects in various ways. The tables below show the results of button combinations.

Table A shows the effects obtained when one button in the INPUT EFFECT section is lit and another button is pressed.
Tables B-1 and B-2 show the effects obtained when two buttons are lit and a third button is pressed.

**Note**

The posterization (POSTRZ button) and monotone (MONOTONE button) effects can be combined with any other input effect. Therefore they are omitted from the tables below.

Combined input effects (A)

| Pressed first / Pressed second | Field a) | | | | | Field or Frame b) | |
|---|---|---|---|---|---|---|---|
| | MOSAIC | MULTI | MULTI 2 | STROBE | ZOOM | FREEZE | PIX TRAIL |
| MOSAIC | Off | MOSAIC | MOSAIC | MOSAIC STROBE | MOSAIC | FREEZE MOSAIC | MOSAIC PIX TRAIL |
| MULTI | MULTI | Off | MULTI | MULTI STROBE | MULTI | MULTI | MULTI |
| MULTI 2 | MULTI 2 | MULTI 2 | Off | STROBE MULTI 2 | MULTI 2 | MULTI 2 | MULTI 2 |
| STROBE | MOSAIC STROBE | MULTI STROBE | MULTI 2 STROBE | Off | ZOOM STROBE | STROBE | PIX TRAIL STROBE |
| ZOOM | ZOOM | ZOOM | ZOOM | STROBE ZOOM | Off | ZOOM | ZOOM |
| FREEZE | MOSAIC FREEZE | MULTI FREEZE | MULTI 2 FREEZE | FREEZE | ZOOM FREEZE | Off | PIX TRAIL FREEZE |
| PIX TRAIL | MOSAIC PIX TRAIL | PIX TRAIL | PIX TRAIL | STROBE PIX TRAIL | PIX TRAIL | PIX TRAIL | Off |

a) The effects are applied to field data.
b) The effects are applied to field data if the FRAME/FIELD button is lit. Otherwise they are applied to frame data.

Combined input effects (B-1)

| Pressed first / Pressed second | Field a) | | | | | | |
|---|---|---|---|---|---|---|---|
| | MOSAIC STROBE | MOSAIC FREEZE | MULTI STROBE | MULTI FREEZE | MULTI 2 STROBE | MULTI 2 FREEZE | STROBE ZOOM |
| MOSAIC | STROBE | FREEZE | STROBE MOSAIC | FREEZE MOSAIC | STROBE MOSAIC | FREEZE MOSAIC | STROBE MOSAIC |
| MULTI | STROBE MULTI | MULTI | Off | Off | STROBE MULTI | MULTI | STROBE MULTI |
| MULTI 2 | STROBE MULTI 2 | MULTI 2 | STROBE MULTI 2 | MULTI 2 | Off | Off | STROBE MULTI 2 |
| STROBE | MOSAIC | MOSAIC STROBE | MULTI | MULTI STROBE | MULTI 2 | MULTI 2 STROBE | ZOOM |
| ZOOM | STROBE ZOOM | ZOOM | STROBE ZOOM | ZOOM | STROBE ZOOM | ZOOM | STROBE |
| FREEZE | MOSAIC FREEZE | MOSAIC | MULTI FREEZE | MULTI | MULTI 2 FREEZE | MULTI 2 | ZOOM FREEZE |
| PIX TRAIL | MOSAIC STROBE PIX TRAIL | MOSAIC PIX TRAIL | STROBE PIX TRAIL | PIX TRAIL | STROBE PIX TRAIL | PIX TRAIL | STROBE PIX TRAIL |

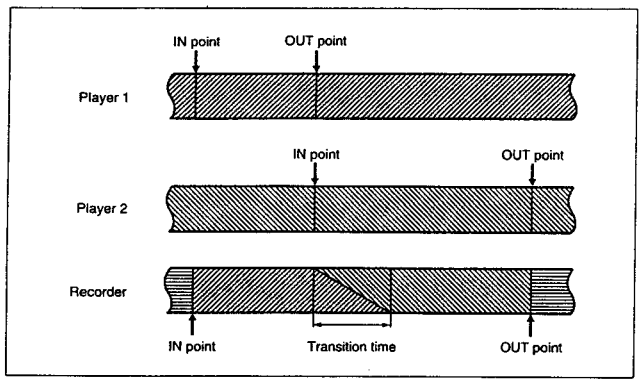
Combined input effects (B-2)

| Pressed first / Pressed second | Field a) | | | | Field or Frame b) |
|---|---|---|---|---|---|
| | STROBE PIX TRAIL | ZOOM FREEZE | MOSAIC PIX TRAIL STROBE | MOSAIC PIX TRAIL FREEZE | PIX TRAIL FREEZE |
| MOSAIC | STROBE MOSAIC | MOSAIC FREEZE | PIX TRAIL STROBE | PIX TRAIL FREEZE | PIX TRAIL FREEZE MOSAIC |
| MULTI | STROBE MULTI | MULTI | STROBE MULTI | FREEZE MULTI | MULTI |
| MULTI 2 | STROBE MULTI 2 | MULTI 2 | STROBE MULTI 2 | FREEZE MULTI 2 | MULTI 2 |
| STROBE | PIX TRAIL | ZOOM STROBE | MOSAIC PIX TRAIL | MOSAIC PIX TRAIL STROBE | PIX TRAIL STROBE |
| ZOOM | STROBE ZOOM | Off | STROBE ZOOM | ZOOM | ZOOM |
| FREEZE | PIX TRAIL FREEZE | ZOOM | MOSAIC PIX TRAIL FREEZE | MOSAIC PIX TRAIL | PIX TRAIL |
| PIX TRAIL | STROBE | PIX TRAIL | MOSAIC STROBE | MOSAIC FREEZE | FREEZE |

a) The effects are applied to field data.
b) The effects are applied to field data if the FRAME/FIELD button is lit. Otherwise they are applied to frame data.

# Setting the Transition Time

This section explains how to set the transition time, or duration, of special effects.




Transition time

**Note**

You do not need to set a transition time if you have selected cut editing by pressing the CUT EDIT button in the EDIT TYPE section.
When using dissolve or wipe effects, the effect is the same as a cut if the transition time is set to 0.

There are two ways to set the transition time.
- Use the TRANS RATE buttons in the EFFECT TRANSITION section.
- Use the numeric keypad.

### Setting video and audio transition times independently

If you have selected split editing (the AUDIO SPLIT button in the EDIT MODE section is lit), you can set independent transition times for video and audio.
- To set the video transition time, press the VIDEO/AUDIO/FADE button in the EFFECT TRANSITION section until only the VIDEO indicator is lit.
- To set the audio transition time, press the VIDEO/AUDIO/FADE button until only the AUDIO indicator is lit.

*For more information about split editing, see "Setting Independent Video and Audio IN Points —Split Editing" (page 6-8).*

### When setting the fade in/fade out transition time

Press the VIDEO/AUDIO/FADE button in the EFFECT TRANSITION section until only the FADE indicator is lit.

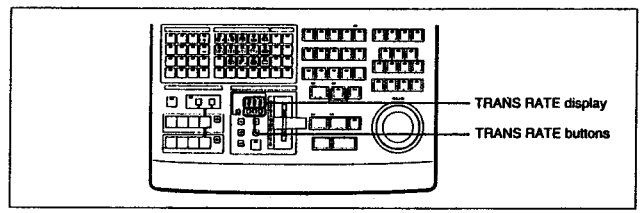
*For more information about fade in and fade out, see "Editing With Fade In and Fade Out" (page 6-16).*





### Setting the transition time with the TRANS RATE buttons

The TRANS RATE buttons in the EFFECT TRANSITION section allow you to select any transition time in the range from 0 to 999 frames. The length of one frame is $^1/_{30}$ seconds (FXE-100) or $^1/_{25}$ seconds (FXE-100P).

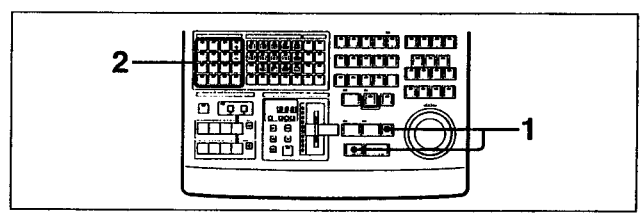



Setting the transition time with the TRANS RATE buttons

- Each time you press a TRANS RATE button, the digit in the display column above the button is incremented by 1. The digit '9' is succeeded by '0'.
- If you press a TRANS RATE button together with the SHIFT button, the display column value is decremented by 1. In this case, the digit '0' is succeeded by '9'.

### Setting the transition time with the numeric keypad

You can also enter a transition time with the numeric keypad. Proceed as follows.




Setting the transition time with the numeric keypad

**1** Press the SET TRANS (=SHIFT + SET DUR) button in the TIME MARK section.
The unit enters numeric keypad mode, enabling the numeric keys. The number in the TRANS RATE display goes out.

**2** After entering the desired number of frames with the numeric keys, press the ENT key.
The transition time is set to the entered value, and the unit exits numeric keypad mode.

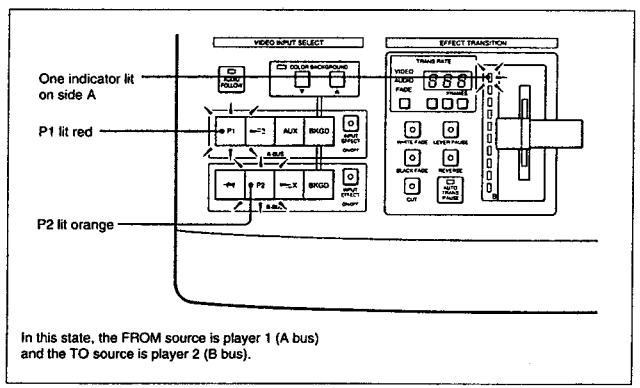
**Note**

In some cases, the actual transition time of the video on the monitor can be slightly shorter than the entered value, so you may wish to set it to a slightly longer value.

# Checking FROM and TO Sources

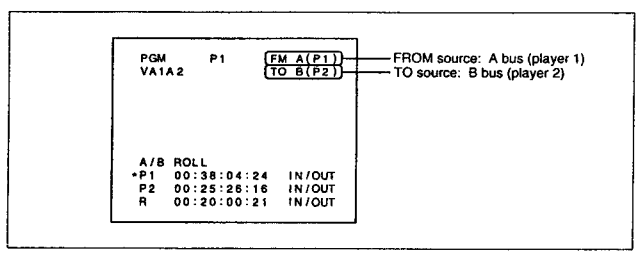
After making the necessary settings, always make a final check of the video signals of the FROM and TO sources before executing a preview or edit.
Check the transition indicators next to the fader lever (normally only one should be lit). Also check the state of the video input selection buttons or the status display on the main monitor.

### Check the transition indicators and video input selection buttons




Checking FROM and TO sources on the control panel

### Check the monitor status display




Checking FROM and TO sources on the monitor

### To reverse the FROM and TO sources

If the FROM and TO sources are reversed, move the fader lever or press the CUT button in the EFFECT TRANSITION section to switch them.

**Note**

The fader lever is disabled while the AUTO TRANS/PAUSE button is lit. Before using the fader lever to reverse sources, extinguish the AUTO TRANS/PAUSE button.

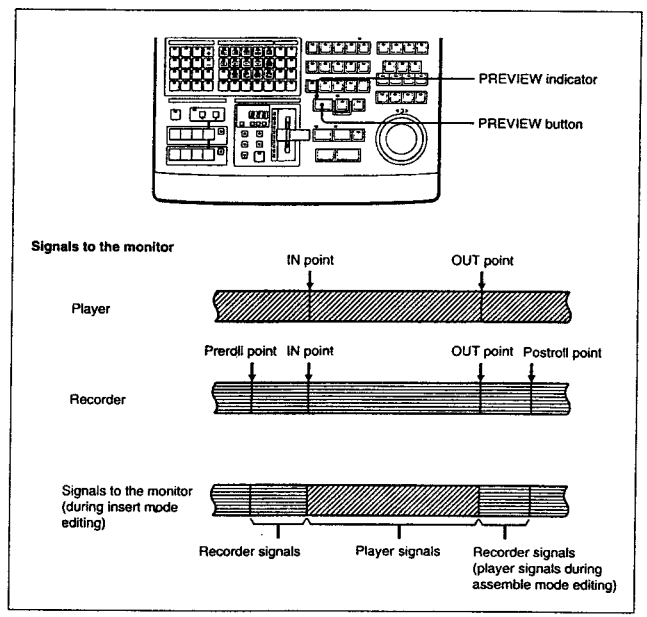
*For details, see "Note on the fader lever" (page 4-13).*

# Preview—The Rehearsal Before Edit Execution

Instead of executing the edit as soon as you finish checking the FROM and TO sources, you can confirm the results of your edit decisions by previewing the edit on a monitor.
In a preview, a monitor connected to the recorder will display the same signals that will be recorded at execution time. You can also view these signals on the main monitor by pressing the SOURCE button in the MONITOR section, turning it on, and then selecting the recorder by pressing the R-VTR button in the SOURCE section.
When you preview the edit, control settings are not registered in the EDL. You can change or correct them as often as necessary.

## Carrying out a preview

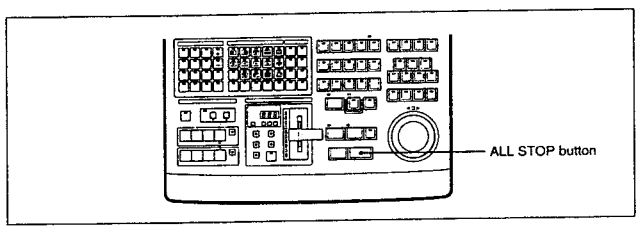
To preview the edit, press the PREVIEW button in the AUTO CONTROL section. The PREVIEW indicator above the button lights, and all of the selected VCRs run from their preroll points to their postroll points.
During the preview the following signals are output to the monitor.




Preview

### To halt a preview

Press the ALL STOP button.
The PREVIEW indicator goes out and all VCRs stop.




Halting a preview

### Sync grade display

During a preview, sync grade information is included in the status display.

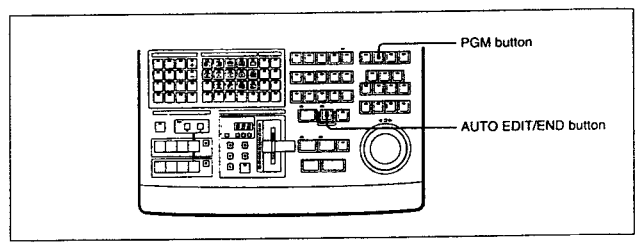
*For details, see "Sync Grade During Previews and Edit Execution" (page 5-65).*





# Executing the Edit

After checking the FROM and TO sources, execute the edit by pressing the AUTO EDIT/END button in the AUTO CONTROL section.
The specified VCRs are rewound to their preroll points, stop, and then begin to run in the forward direction. The AUTO EDIT/END button flashes during the preroll time, and lights when the recorder IN point is reached to indicate that recording has begun.
If you press the PGM button in the MONITOR section, turning it on, you can monitor the program video and audio signals on the main monitor.




Executing the edit

### When the edit ends

- The AUTO EDIT/END button goes out, and all VCRs stop.
- The edit data is saved in the EDL. The number in the edit number display of the EDIT PGM section is incremented, and the unit is readied for a new edit.

*For more information about the EDL, see Chapter 7.*

### If edit data has not been set correctly

An error code appears in a time counter display as soon as you press the AUTO EDIT/END button. The edit is not executed. Correct the data and repeat the edit.

### If a warning sound is heard after edit execution starts

The unit leaves recording mode without registering the edit in the EDL. Warning sounds are issued in cases such as the following.

- No time code/CTL signals were found on the master tape.
- Connected equipment could not be controlled.
- Time data corresponding to edit settings could not be found on a tape.

### To check the total execution time

To check the total execution time of an edit carried out on a single master tape, press the TOTAL (= SHIFT + CLEAR) button in the AUTO CONTROL section. The total time appears in the RECORDER time counter display, from the earliest recorded IN point to the last recorded OUT point. If the PGM MODE button in the EDIT PGM section is on, the total is for edits which were recorded and registered in the EDL. Otherwise it is the total for the earliest to the latest recorded edits on the tape.

### To halt an edit (without registering it in the EDL)

Press the ALL STOP button.
All VCRs are stopped. The edit number is not incremented.

### To halt an edit at a desired scene (and register it in the EDL)

Press the AUTO EDIT/END button, turning it off.
The edit number is incremented, and the master tape time code for the point where the button is pressed is registered as the recorder OUT point.

### Sync grade display

During edit execution, sync grade information is included in the status display.

*For details, see "Sync Grade During Previews and Edit Execution" (page 5-65).*

## Automatic settings after edit execution

After an edit is executed, some data items for the next edit are set automatically, as follows.

- **Edit mode:** The edit mode selected for the previous edit (and registered in the EDL after execution).
  However, assemble mode is selected after a first edit.
- **Edit type:** The edit type selected for the previous edit.
- **Video switching effect:** As follows, depending on the effect selected for the previous edit.

| Previous edit type (selection button) | Automatically selected switching effect for next edit |
|---|---|
| Cut (CUT EDIT) | Cut |
| Other than cut edit (A-ROLL, A/B ROLL, MAN, SYNC ROLL) | Same as previous edit |

- **Input effect:** Same as previous edit
- **Sources:** As follows, depending on sources selected for previous edit.

| Previous edit type (selection button) | Automatically selected source for next edit |
|---|---|
| Cut (CUT EDIT) | Same source as previous edit |
| A-roll (A-ROLL) | A-bus source of previous edit |
| A/B roll (A/B ROLL) | TO source of previous edit |
| Manual effects (MAN) | |
| Sync roll (SYNC ROLL) | |

- **Edit number:** Number of previous edit plus 1.
- **Recorder IN point:** Recorder OUT point of previous edit.
- **Player IN point:** Player OUT point of previous edit.



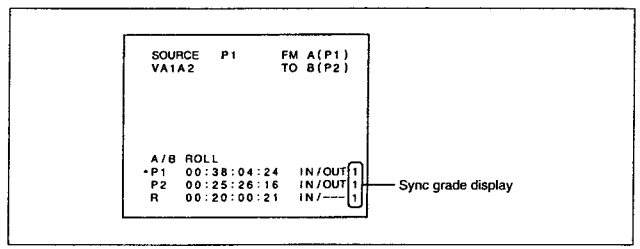


# Sync Grade During Previews and Edit Execution

During previews and automatic edits, the main monitor status display contains one-digit codes to indicate the degree of synchronizing precision between VCRs.

**Note**

If you set setup menu item 303 SYNC GRADE DISPLAY to OFF, this information will not be displayed.




Sync grade display

The meanings of the codes are as follows. The sync grade can be selected under item 301 SYNC GRADE in the setup menu.

| Sync grade (status display) | Display code number |
|---|---|
| ACCURATE | 1 |
| +/– 1 FRAME | 2 |
| ROUGH | 3 |
| PREROLL&PLAY | 4 |

*For details, see Chapter 8.*

**Note**

The sync grade is not displayed if setup menu item 104 EDIT REFERENCE is set to CTL.

### If a VCR cannot be synchronized

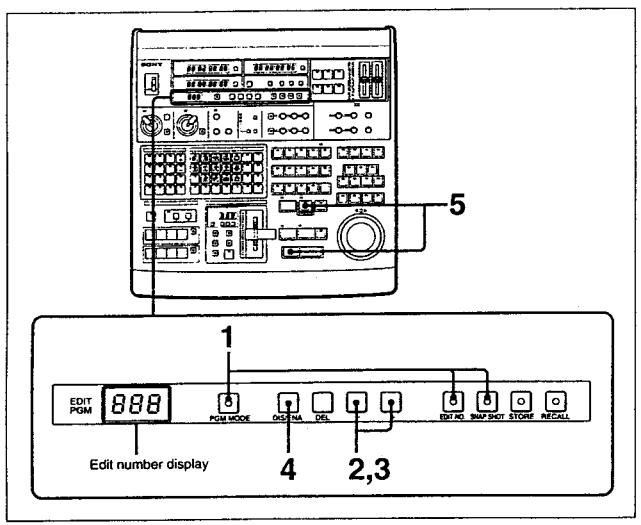
An error code appears in the corresponding time counter display.
In this case, use the setup menu to select a lower sync grade.

# Automatic Execution of Multiple Edits —Auto Assembly

Automatic, sequential recording of edits registered in the EDL is called auto assembly. You can designate a given edit as the initial edit, and automatically record edits with higher edit numbers. You can also skip edits which need not be recorded.

*For more information about the EDL, see Chapter 7.*

To conduct an auto assemble edit, proceed as follows.




Auto assemble edit

**1** If any of the PGM MODE, EDIT NO. or SNAPSHOT buttons in the EDIT PGM section are not lit, press them, turning them on.

**2** Designate an initial edit by pressing the '+' and '–' buttons until its number appears in the edit number display.
- If you want to record all edits after the initial edit, proceed to step **5**.
- If you want to skip a certain edit, proceed to step **3**.

**3** Using the '+' and '–' buttons, display the number of the edit which you want to skip in the edit number display.

**4** Press the DIS/ENA button.
The leftmost digit in the edit number display changes to a minus sign (–).[1)]
To skip more edits, return to step **3**.

**5** Press the AUTO ASM (=SHIFT + AUTO EDIT/END) button in the AUTO CONTROL section.
Recording begins automatically from the initial edit specified in step **2**.

### To halt auto assembly

Press the ALL STOP button.
All VCRs stop, and the unit leaves auto assemble mode.

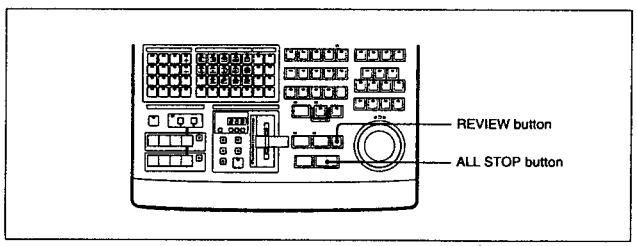
1) The edit remains in the EDL, even if a minus sign is displayed before its edit number. Pressing the DIS/ENA button once more removes the minus sign and cancels the designation.

# Reviewing the Edit

After executing the edit, you can conduct a review in order to check the signals which have been recorded on the master tape.
During a review, master tape playback is displayed on the recorder monitor. If you press the SOURCE button in the MONITOR section, turning it on, and select the recorder by pressing the R-VTR button in the SOURCE section, the same signals are displayed on the main monitor.

## Conducting a review

To conduct a review, press the REVIEW button in the AUTO CONTROL section, turning it on.
Settings registered in the EDL as a result of edit execution are recalled to the control panel, and the edit is played back from the preroll point to the postroll point.
When the review ends, the recorder is rewound to the OUT point, where it stops.



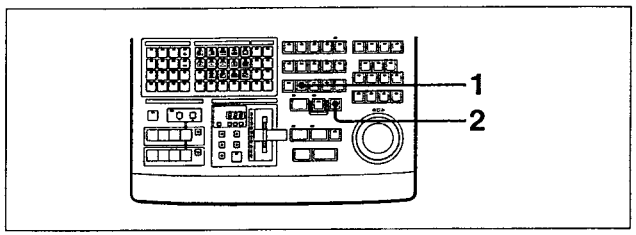

Conducting a review

### To stop a review

Press the ALL STOP button.
The REVIEW button goes out, and the recorder stops.

### To review near the OUT point only

Instead of reviewing the entire edit, from preroll point to postroll point, you can review only the vicinity of the OUT point.
Proceed as follows.




Reviewing near the OUT point only

**1** Press the OUT button in the AUTO CONTROL section, turning it on.

**2** Press the REVIEW button.
The most recently registered edit is recalled from the EDL, and the master tape is played back at normal speed near the OUT point only.

### To review effect start points

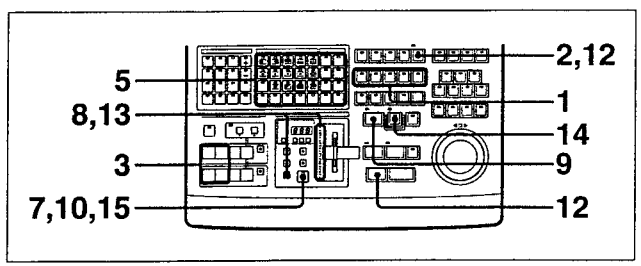
After pressing the REVIEW button to begin the review, press it once more.
The recorder begins fast forward playback, and returns to normal speed at a point slightly before the effect start point only.

1-69

# On the Fly Editing With Two Players—Sync Roll Editing

In normal A/B roll editing, player 1 is started as the A-bus source, and player 2 started as the B-bus source when player 1 nears its OUT point. In another technique, called sync roll editing, both players are started simultaneously, allowing you to switch manually from bus A to bus B and back again when the desired scenes appear. This can be covenient when, for example, you are editing shots of the same event taken by two cameras from different angles.
To apply dissolves and wipes while switching between buses, use the AUTO TRANS/PAUSE button in the EFFECT TRANSITION section. To cut between the buses, use the CUT button.
Sync roll previews are automatically saved in preview memory.

The following example shows how to use the AUTO TRANS/PAUSE button.




Sync roll editing

**1** Select insert or assemble mode.

**2** Press the SYNC ROLL button in the EDIT TYPE section, turning it on.

**3** In the VIDEO INPUT SELECT section, select source players for bus A and bus B.

**4** Set the edit points (*see page 5-13*).
If you selected assemble mode in step **1**, you do not need to set the recorder OUT point.

**5** Select the transition effect using the buttons in the WIPE PATTERN and MIX/EFFECT sections.

**6** Set the effect transition time (*see page 5-58*).

**7** If the AUTO TRANS/PAUSE button in the EFFECT TRANSITION section is not lit, press it, turning it on.

**8** • To preview the edit while viewing the monitor, press the PREVIEW button and proceed to step **9**.
• To execute the edit without a preview, proceed to step **11**.

**9** After passing the edit IN point [1] press the AUTO TRANS/PAUSE button at any scene to begin the effect transition.
You can switch between buses any number of times during the preview.

**10** • If you are satisfied with the results of the preview, proceed to step **11**.
• If you are not satisfied, change settings (if necessary) and go back to step **7**.

**11** Press the AUTO EDIT/END button to execute the edit.

**12** After passing the edit IN point[1], press the AUTO TRANS/PAUSE button to switch buses.
You can switch buses any number of times before reaching the recorder OUT point.
At the recorder OUT point, the edit ends automatically. The edit data for the switches performed is registered in the EDL.

**To end a sync roll edit when the recorder OUT point is not set**
Press the AUTO EDIT/END or ALL STOP button.
All VCRs stop, and the unit leaves sync roll mode. Depending on the button pressed, time code for the point where the button was pressed may or may not be registered as an OUT point in the EDL.
• If the AUTO EDIT/END button is pressed, an OUT point is registered in the EDL.
• If the ALL STOP button is pressed, an OUT point is not registered in the EDL.

1) Edit IN point: In split editing, either the video IN point or the audio IN point, whichever comes later.

# Editing With Manual Special Effects

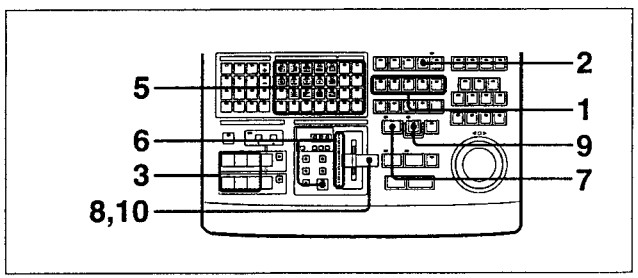
By using the fader lever to carry out dissolves and wipes manually, you can vary the transition speed, stop midway through the transition, and achieve other special effects. You can also switch back to A-bus video after a transition to B-bus video. Effects created in this way are not registered in the EDL, even if you execute an edit.

**Note**

Instead of using the fader lever, you can also use the AUTO TRANS/PAUSE button or the CUT button, which switches instantly between A-bus and B-bus signals.

*For details on using the AUTO TRANS/PAUSE button, see "Auto Transition Effects" (page 6-6).*

The following example shows how to use the fader lever to create special effects.




Using the fader lever for special effects

**1** Select insert or assemble mode.

**2** Press the MAN button in the EDIT TYPE section, turning it on.

**3** In the VIDEO INPUT SELECT section, select source players for bus A and bus B.

**4** Set the edit points (*see page 5-13*).
If you selected assemble mode in step **1**, you do not need to set the recorder OUT point.

**5** Select the transition effect using the buttons in the WIPE PATTERN and MIX/EFFECT sections.

**6** Check the FROM and TO sources.
Only one transition indicator should be lit—the topmost indicator on the A side if the transition moves from bus A to bus B, or the lowermost indicator on the B side if it moves in the opposite direction.

**7** • To rehearse the transition while viewing playback on the monitor, press the PREVIEW button and proceed to step **8**.
• If a preview is not necessary, proceed to step **9**.

**8** A preview starts as soon as you press the PREVIEW button. When it reaches the edit IN point manipulate the fader lever and observe the changes in the picture.
You can switch between the sources any number of times before reaching the recorder OUT point.
• If satisfied with the results of the preview, check the FROM and TO sources and proceed to step **9**.
• To redo the preview, make the necessary adjustments and return to step **6**.

**9** Press the AUTO EDIT/END button to execute the edit.

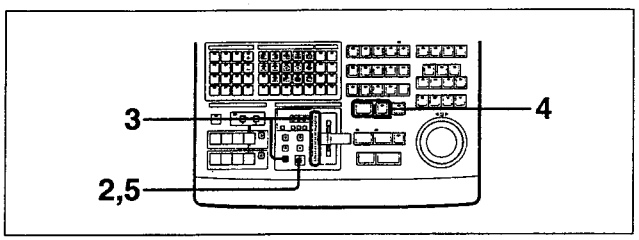
**10** Use the fader lever to switch between buses at the desired scenes. You can switch any number of times before reaching the recorder OUT point.

**To end a manual effects edit when the recorder OUT point is not set**

Press the AUTO EDIT/END or ALL STOP button.
All VCRs stop, and the unit leaves manual effects mode.
• If the AUTO EDIT/END button is pressed, the edit data (except for the effect type and transition time) is registered in the EDL.
• If the ALL STOP button is pressed, nothing is registered in the EDL.

## Auto Transition Effects

Instead of using the fader lever, you can also use the AUTO TRANS/PAUSE button for manual transition effects. After carrying out steps **1** to **5** in the procedure on page 6-4, proceed as follows.




Creating effects in auto transition mode

**1** Set the effect transition time (*see page 5-58*).

**2** If the AUTO TRANS/PAUSE button is not lit, press it, turning it on.

**3** Check the FROM and TO sources.
Only one transition indicator should be lit, on the A or B side.

**4** Press the PREVIEW or AUTO EDIT/END button to put the unit into preview or edit execution mode.

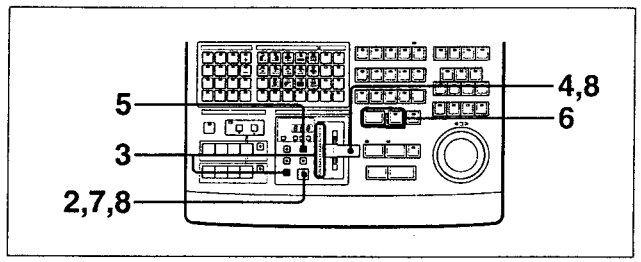
**5** After passing the edit IN point, press the lit AUTO TRANS/PAUSE button.
The auto transition begins, switching from one bus to the other. You can switch between buses any number of times before reaching the recorder OUT point.

### To suspend an auto transition

After starting the transition by pressing the AUTO TRANS/PAUSE button, press it again at the desired position. The button changes from lit to flashing.
To resume the transition, press the AUTO TRANS/PAUSE button once more. The button changes from flashing to lit.

### To stop an auto transition automatically at the desired position

By manipulating the fader lever, you can decide the position where you want to halt an auto transition. After carrying out steps **1** to **5** on page 6-4, proceed as follows.




Stopping an auto transition automatically at the desired position

**1** Set the effect transition time (*see page 5-58*).

**2** If the AUTO TRANS/PAUSE button is not lit, press it, turning it on.

**3** Check the FROM and TO sources.
Only one transition indicator should be lit, on the A or B side.

**4** Move the fader lever to the position at which you wish to stop.

**5** Press the LEVER PAUSE button, turning it on.

**6** Press the PREVIEW or AUTO EDIT/END button to put the unit into preview or edit execution mode.

**7** After passing the edit IN point, press the lit AUTO TRANS/PAUSE button.
The auto transition begins, and stops automatically at the fader lever position.
The AUTO TRANS/PAUSE button starts flashing.

**8** To resume the transition, press the AUTO TRANS/PAUSE button again or move the fader lever.
If you move the fader lever, the unit leaves auto transition mode.

# Setting Independent Video and Audio IN Points—Split Editing

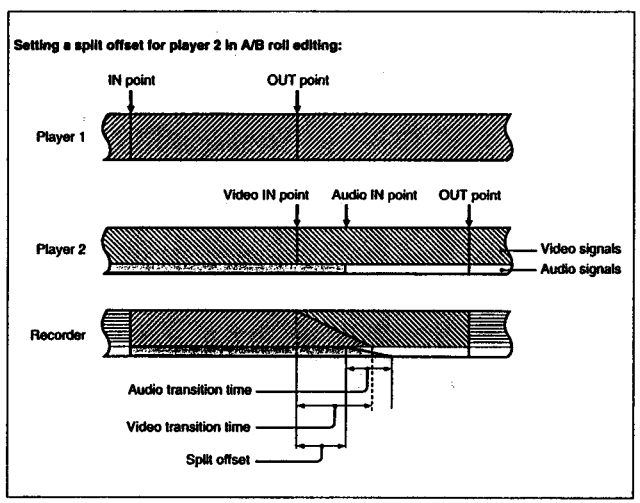
Editing with independent video and audio IN points is called split editing. You can set split offsets separately for all the connected VCRs (player 1, player 2, and recorder).

The following restrictions apply in split editing.

- You must select insert mode as the edit mode to perform split editing. Moreover, it is not possible to set different split offsets for audio channels 1 and 2. The split offset is always the same for channel 1 and channel 2.
- The maximum split offset between the video IN point and the audio IN point is:
  59 seconds and 29 frames (FXE-100) or
  59 seconds and 24 frames (FXE-100P).
- Independent OUT points cannot be set for audio and video.
- If you set split offsets for the players and the recorder, the recorder split offset takes priority.

### Relationship between transition times and split offset

In split editing, you can set separate transition times for audio and video.
In this case, the relationship between the transition times and the split offset is as shown below.

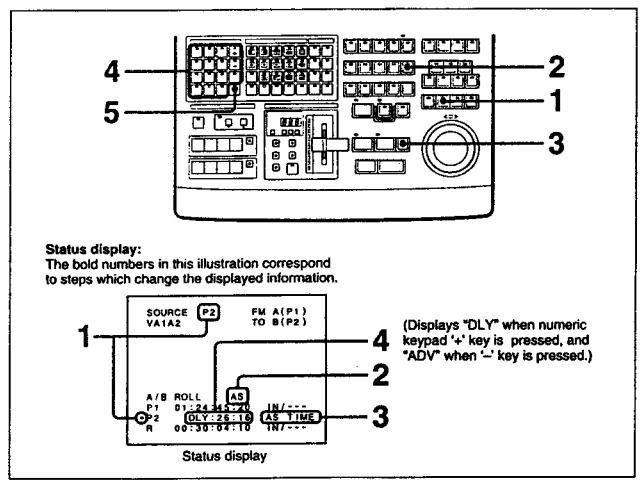



Relationship between transition times and split offset

### Setting the split offset

The audio IN point is calculated automatically, using the video IN point and the split offset.
For example, the procedure below shows how to set a split offset for player 2 when the following settings have been made.

- **Insert edit channels:** Video, audio 1, audio 2
- **Edit type:** A/B roll




Splitting the video and audio IN points for player 2

**1** In the SOURCE section, select the VCR for which you want to split the audio and video IN points (in this example, player 2).

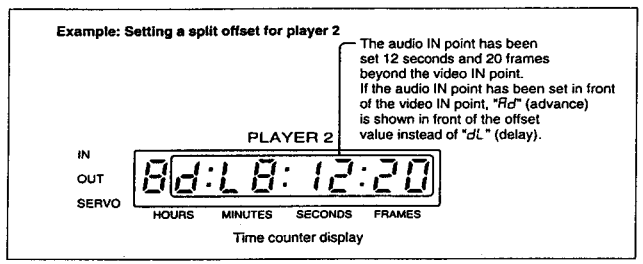
**2** Press the AUDIO SPLIT button in the EDIT MODE section.
The button begins to flash and the unit enters split edit mode.

**3** Press the SET DUR button in the TIME MARK section.
The button begins to flash and the numeric keypad is enabled.

**4** Enter the split offset (seconds:frames) using the numeric keypad.
Press the '+' key to set the audio IN point beyond the video IN point, and the '–' key to set it in front of the video IN point. You can enter up to 4 digits.
If the most significant digits are '0', they do not need to be entered again.

*(Continued)*

**5** Press the ENT key in the numeric keypad.
The value entered in step **4** is confirmed as the split offset, and the unit leaves numeric keypad mode.
The split offset is shown in the appropriate time counter display, as follows.




### To display the split offset
You can display the split offset at any time by selecting the VCR in the SOURCE section, and then pressing the SPLIT (=SHIFT + AUDIO SPLIT) button in the EDIT MODE section. The split offset is displayed in the main monitor's status display, and in the time counter display of the selected VCR.

### To change the split offset
To change the split offset, put the unit into split mode, press the SET DUR button in the TIME MARK section and enter the new offset with the keys in the numeric keypad. In this case, the '+' and '– ' keys are used to specify "DLY" and "ADV", respectively. They do not increment or decrement the numeric value.

### To cancel a split offset
Display the split offset, then press the CLEAR button in the AUTO CONTROL section.

### To set the video IN point while the AUDIO SPLIT button is flashing
You can set video edit points in the normal way, by pressing the MARK IN and MARK OUT buttons (but not the SET DUR button) in the TIME MARK section.

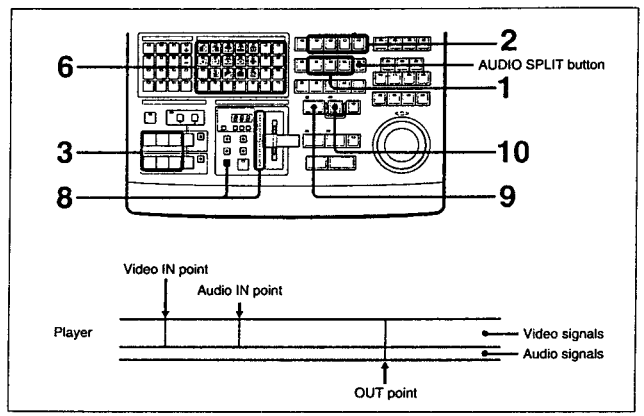
### To exit split edit mode
Press the flashing AUDIO SPLIT button, turning it off.

1-74



## Executing a split edit

The following example shows how to execute a split edit using player signals on either the A bus or B bus.




Executing a split edit

**1** Select insert mode in the EDIT MODE section by pressing insert buttons (V, A1, A2) for the desired channels, turning them on. If a button is flashing, press it twice.

**2** Select the edit type in the EDIT TYPE section.

**3** In the VIDEO INPUT SELECT section, select the source.

**4** Set the edit points (*see page 5-13*).

**5** Set the split offset between the audio IN point and the video IN point for the selected player, on either the A bus or the B bus.
*For details, see "Setting the split offset" (page 6-9).*

**6** Select the transition effect using the buttons in the WIPE PATTERN and MIX/EFFECT sections.

**7** Set the effect transition time (*see page 5-58*).

**8** Check the FROM and TO sources.

**9** Preview the edit and change the settings as necessary.
When you press the PREVIEW button, the AUDIO SPLIT button stops flashing and lights.

*(Continued)*

**10** Execute the edit.
The AUDIO SPLIT button stops flashing and lights when you press the AUTO EDIT/END button, and goes out when the edit ends.

**Note**

When a split edit is executed, the split offset is saved in EDL memory as part of the information relating to that edit. However, it is not carried over to new edits.

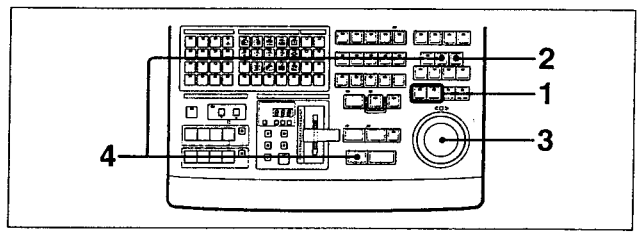


# Editing Variable-Speed Playback—DMC Editing

If your player VCR supports Dynamic Tracking (DT) playback, you can edit noiseless, variable-speed video playback. This kind of editing is called Dynamic Motion Control (DMC). In DMC editing, it is necessary to set the initial playback speed, or speed of the player at the point where it crosses the IN point.

## Setting the initial speed for DT playback

Proceed as follows to set the initial speed for DT playback.




Setting the initial speed for DT playback

**1** Select the DT player using the buttons in the SOURCE section.

**2** Press the DMC button in the MANUAL CONTROL section, turning it on.
The specified player enters DMC mode.

**3** Press the search dial to put it into the shuttle mode (high) position, and rotate to control the playback speed. Stop rotating the dial when playback reaches the desired speed.

**Note**

This unit can control DT playback at speeds ranging from –1 to +3 times normal speed. However, the actual speeds produced may vary, depending on the particular VCR.

**4** Press the MK-SPD (=SHIFT + SPEED) button in the MANUAL CONTROL section.
The speed of DT playback at the time when you pressed the button is stored in the unit's memory.

### To cancel DMC mode

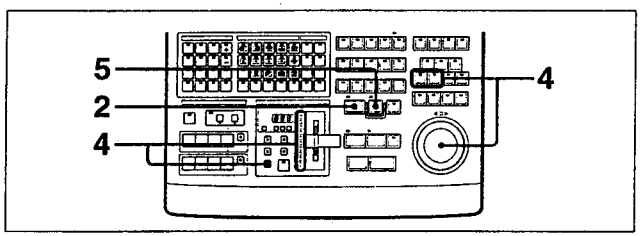
Press the lit DMC button, turning it off.

### To delete an initial speed from memory

Once you have set a VCR's initial playback speed and used it in editing, that player always begins DT playback at the selected speed. If you want to begin at normal speed, it will be necessary to delete the initial speed from memory.
To delete the initial speed, select the player with the appropriate button in the SOURCE section, press the SPEED button in the MANUAL CONTROL section, and then press the CLEAR button in the AUTO CONTROL section.

## Performing a DMC edit

To perform a DMC edit, first initialize the DT playback speed, then proceed as follows.
After a preview or edit passes the IN point, you can control the DT playback speed manually.




DMC editing

**1** Follow the standard procedures to select the edit mode and so on.

**2** Check the FROM and TO sources.

**3** • If you want to execute the edit without a preview, proceed to step **5**.
• If you want to preview the edit first, press the PREVIEW button.
The button lights and a preview begins. When a player programmed for DT playback reaches the IN point, the DMC button begins flashing, and DT playback begins at the specified initial speed.
If you also want to control the playback speed during the preview, proceed to step **4**.
If you do not want to control the playback speed, wait for the preview to finish and then proceed to step **5**.

**4** To control the playback speed manually, press to put the search dial into shuttle mode and rotate it.

**Notes**

- The search dial does not affect playback speed until it reaches the DT initial speed position.
- Instead of using the search dial, you can also press the PLAY button in the MANUAL CONTROL section for playback at +1 times normal speed, or press the STILL button for still playback.

**5** Press the AUTO EDIT/END button to execute the edit.
Just as during a preview, you can use the search dial and PLAY button to control playback speed beyond the IN point, and press the STILL button for still playback.
Note that manually controlled playback speeds are not saved in the EDL, although the DT initial speed is saved.

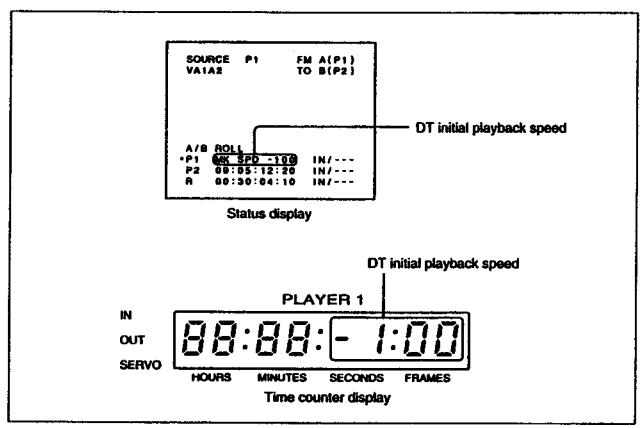
**6** Press the AUTO EDIT/END button to execute the edit.
Just as during a preview, you can use the search dial and PLAY button to control playback speed beyond the IN point, and press the STILL button for still playback.
Note that manually controlled playback speeds are not saved in the EDL, although the DT initial speed is saved.

### To change the initial speed during a preview

After selecting the desired speed in step **5**, press the SPEED button to display the current DT playback speed and then press the MK-SPD (=SHIFT + SPEED) button.

### To check the initial DT playback speed

Select the player with the appropriate button in the SOURCE section, then press the SPEED button in the MANUAL CONTROL section, turning it on. The initial DT playback speed is displayed in the main monitor's status display and in the appropriate time counter display as a percentage of normal speed. For example, if the initial speed for player 1 on bus A has been set to –1 times normal speed, the following information is displayed.




Checking DT initial playback speed

### Automatic calculation of edit points when a DT initial speed is set

Even if you have set an initial DT playback speed, the unit calculates edit points and durations in the same way as in normal editing, regardless of the initial speed.

*For details about automatic calculation of edit points and durations, see "Relation Between IN/OUT Points and Duration" (page 5-17).*

1-76

# Editing With Fade In and Fade Out

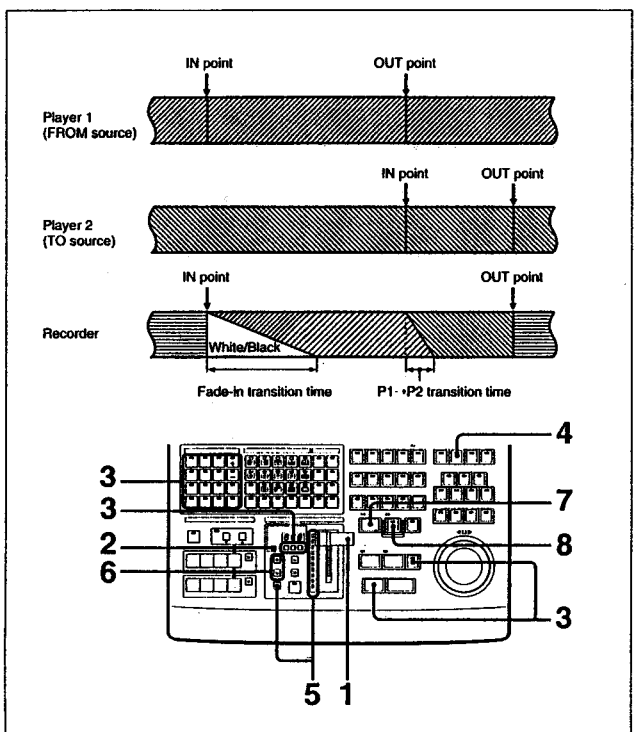
You can fade player video in to or out from a black or white background. The black or white background is output from the TO source bus.

**Notes**

- The fade-in and fade-out effects cannot be used when any of the key selection buttons (LUMINA KEY, CHROMA KEY, P IN P) are lit.
- The fader lever cannot be used for fade-in or fade-out effects.
- Fade-in from the edit IN point cannot be used during sync roll editing.
- If you perform a fade-in during A-roll editing, the black or white background is output on bus B, overriding the A-roll effect.

## Fade In

Proceed as follows to use the fade-in effect in normal A/B roll editing. This example assumes that player 1 has been selected as the A-bus source, and player 2 as the B-bus source.




Fade-in A/B roll editing

**1** Push the fader lever all the way up to the A side, so that only the topmost transition indicator is lit.

**2** Press the VIDEO/AUDIO/FADE button in the EFFECT TRANSITION section, lighting the FADE indicator above the button.
The fade transition time may now be set.

**3** Set the fade transition time using the TRANS RATE buttons in the EFFECT TRANSITION section, or the SET TRANS (=SHIFT + SET DUR) in the TIME MARK section button *(see page 5-58)*.

**Note**

The fade transition time must be shorter than the duration for player 1. If it is not shorter, an error code is displayed in the appropriate time counter display when you press the PREVIEW or AUTO EDIT/END button, and the preview or edit is not executed. The edit is executed if the fade transition time and player 1 duration are equal.

**4** Press the PGM button in the MONITOR section.
The main monitor displays still playback from player 1.

**5** Check the FROM and TO sources.

**6** To fade the playback from player 1 in from a white background, press the WHITE FADE button in the EFFECT TRANSITION section. Press the BLACK FADE button to fade in from a black background.
The BKGD button in the TO source row of the VIDEO INPUT SELECT section (in this example the B-BUS row) lights automatically, and the picture changes gradually to a white or black background, using the same transition time which was set in step **3**. The lit WHITE FADE or BLACK FADE button begins to flash.

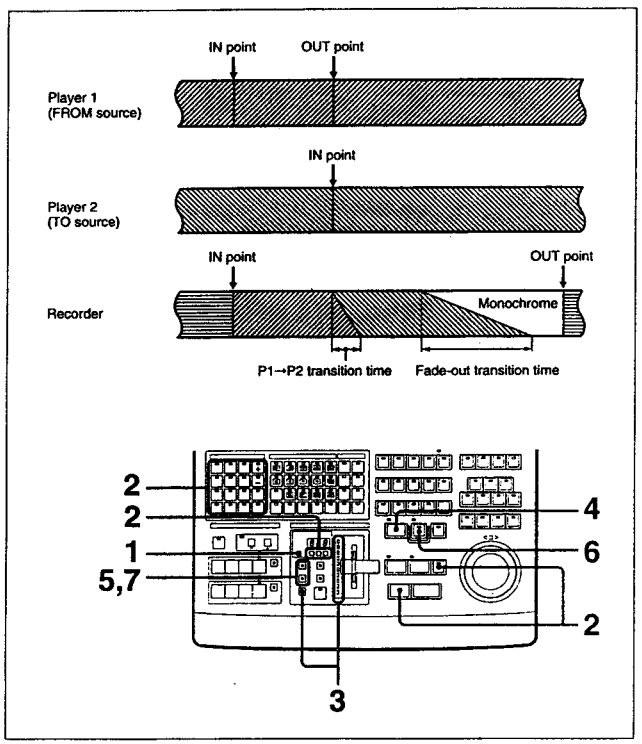
**7** Preview the edit and change the settings as necessary.
The WHITE FADE or BLACK FADE button flashes during the preview and goes out at the end of the transition (when player 1 video has completely replaced the background).

**8** Execute the edit.
During the edit, the flashing WHITE FADE or BLACK FADE button goes out at the end of the fade-in transition.

1-77

## Fade Out

You can perform a fade out in A/B roll editing at any point after the transition from the FROM source to the TO source. The following example shows how to fade the TO source playback out to a black or white background after an A/B roll transition. Make the normal edit point settings for an A/B roll edit (but do not set the OUT point for the TO source), then proceed as follows. This example assumes that player 1 has been selected as the A-bus source, and player 2 as the B-bus source.




Fade-out in A/B roll editing

1 Press the VIDEO/AUDIO/FADE button in the EFFECT TRANSITION section, lighting the FADE indicator above the button.
The fade transition time may now be set.

2 Set the fade transition time using the TRANS RATE buttons in the EFFECT TRANSITION section, or the SET TRANS (=SHIFT + SET DUR) button in the TIME MARK section *(see page 5-58)*.

3 Check the FROM and TO sources.

4
- If you want to preview the edit, press the PREVIEW button and proceed to step **5**.
- To execute the edit without a preview, proceed to step **6**.

5 When the preview starts, wait until the end of the transition to the TO source, then press the WHITE FADE or BLACK FADE button in the EFFECT TRANSITION section.
At the end of the fade-out transition (when player 2 video has been completely replaced by the background), the lit WHITE FADE or BLACK FADE button starts flashing.
- If satisfied with the preview, proceed to step **6**.
- If not satisfied, make the necessary changes and redo the preview.

6 Press the AUTO EDIT/END button to execute the edit.

7 After the A/B roll transition, when player 2 video has completely replaced player 1 video, press the WHITE FADE or BLACK FADE button at the desired scene, turning it on.
- After the fade-out transition (when the white or black background has completely replaced player 2 playback), the lit WHITE FADE or BLACK FADE button starts flashing.
- When the recorder finishes recording, the unit leaves fade mode and the flashing WHITE FADE or BLACK FADE button goes out. The monitor displays still playback from player 2.

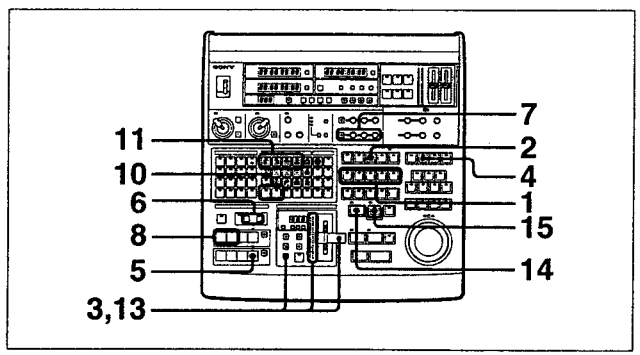
1-78

# Using Color Backgrounds

The unit's internal color background generator can be used to generate effective backgrounds for use with mixes, wipes and so on.
This section shows how to slide player video into a color background, and how to switch to a color background by sliding player video out.

## Slide In and Slide Out Using a Color Background

The following example shows how to slide in or slide out video from a source player using a selected background color.




Slide in and slide out using a color background

1 Select the edit mode in the EDIT MODE section.

2 Press the A/B ROLL button in the EDIT TYPE section, turning it on.

3 Select the B bus by pressing the CUT button in the EFFECT TRANSITION section, or by pulling the fader lever all the way down to the B side. Check to be sure that only the lowermost transition indicator on the B side is lit.

4 Press the PGM button in the MONITOR section, turning it on.

5 In the VIDEO INPUT SELECT section, press the BKGD button in the B-BUS row, turning it on, to select the built-in color background generator as the source for bus B.
The COLOR BACKGROUND indicator lights, and a background color is output to the monitor.

6 Use the background color selection buttons (▼ and ▲) to select one of the 25 background colors.

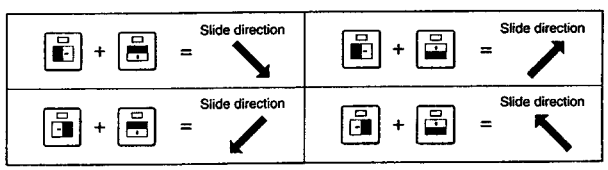
7 Adjust the hue, luminance and chrominance of the background color by pressing the B-BUS button in the VIDEO LEVEL & HUE section and then rotating the three knobs.

8 Press the P1 or P2 button in the A-BUS row of the VIDEO INPUT SELECT section, turning it on, to select player 1 or player 2 as the source for bus A.

9 Set the edit points (*see page 5-13*).
For bus B, enter a duration by pressing the AUX button in the SOURCE section, turning it on, and then pressing the SET DUR button and using the numeric keypad.

10 Press the SLIDE IN button in the WIPE PATTERN section to select a slide in effect. Press the SLIDE OUT button to select slide out.

11 Use the horizontal and vertical wipe buttons to set the direction.
To slide in at a slant, press one each of the horizontal and vertical wipe buttons, turning them on.




12 Set the slide-in or slide-out transition time (*see page 5-58*).

13 Check the FROM and TO sources.
- For a slide in, only the lowermost transition indicator on side B should be lit.
- For a slide out, only the topmost transition indicatoron side A should be lit.

If other indicators are lit, press the CUT button in the EFFECT TRANSITION section to switch buses.

14 Preview the edit and change the settings as necessary.

15 Execute the edit.

1-79

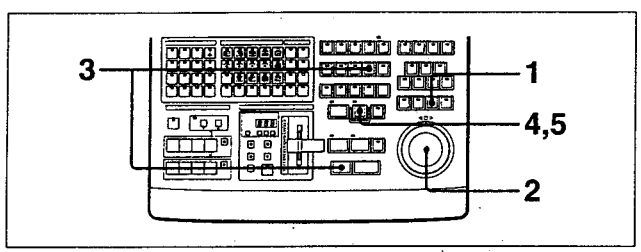
# Recording Time Code—Time Code Insert

To perform time code editing [1] with a tape containing recorded video or audio but no recorded time code, it is necessary to record consecutive time code on the tape in advance, at least for the segment you wish to edit. Adding time code to a pre-recorded tape in this way is called time code insert.
Even if time code is already recorded on the tape, you may want to change the time code values. This is also done by executing a time code insert with the desired preset value. If you do not set a preset value, time code will be inserted so as to form a continuous sequence with the time code already recorded on the tape.

**Notes**

- Time code cannot be recorded correctly on a tape or a section of tape on which nothing at all has been recorded.
- When inserting time code into an already recorded tape, the tape should normally be loaded into the recorder VCR. This prevents misoperations such as selecting a player VCR containing a tape with time code that should not be overwritten.

To perform a time code insert, proceed as follows.




Time code insert

**1** Insert the tape onto which you want to record time codes into a VCR (normally the recorder), and select that VCR in the SOURCE section.

**2** Using the search dial, search for the desired scene (the time code insert IN point).
If time codes are recorded before the IN point, and you want to insert time codes so as to form a continuous sequence, rewind the tape to the section containing the already recorded time codes.

**Note**

Before recording time code, check to be sure that signals have already been recorded on the tape, at least between the preroll point and the IN point.

1) Time code editing: Editing which uses time code to determine edit point locations, as opposed to editing which uses CTL codes.



**3** Press the TC (=SHIFT + A2) button in the EDIT MODE section.

**4** Press the AUTO EDIT/END button in the AUTO CONTROL section.
The button begins to flash, and the tape is rewound from the IN point to the preroll point. It stops there, and begins to run in the forward direction. Time code recording begins when the tape nears the IN point. When the IN point is passed, the AUTO EDIT/END button stops flashing and lights.
During time code recording, the monitor displays the recorded video.

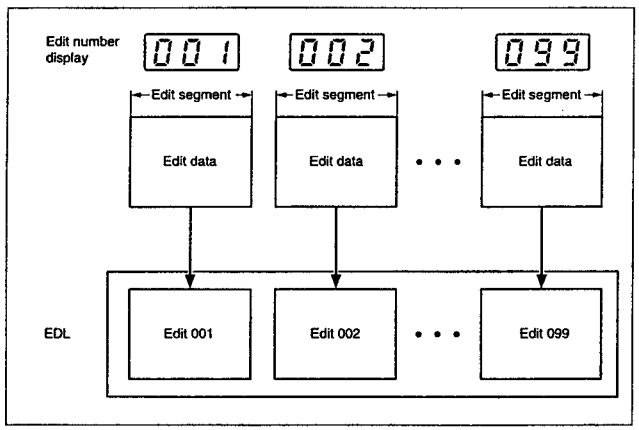
**5** Press the AUTO EDIT/END button at the point where you wish to end the time code recording.

### To preset the time code for an IN point

Preset the time code for an IN point just as you would set an edit point, by pressing the MARK IN button in the TIME MARK section, or by pressing the SET IN (=SHIFT + MARK IN) button and entering the time code value with the numeric keypad.

# About the EDL

The edit decision list (EDL) is stored in the unit's internal memory. As shown below, it contains a list of edits numbered from 001 to 099. Each edit contains all of the settings needed to carry out an automatic edit.
After registering an edit in the EDL, you can recall it whenever you need it again. You can revise a recalled edit and save the revised version. The current edit is displayed as a three-digit number in the edit number display, located in the EDIT PGM section of the control panel.




Structure of the EDL

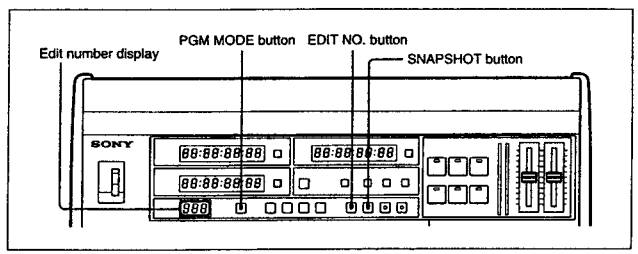
### When performing an EDL operation

The PGM MODE button and the EDIT NO. button in the EDIT PGM section should both be lit. If they are not lit, press them so that they light. While the PGM MODE button is lit, the edit number is shown in the edit number display.

*For details about the display format, see "Edit number display format" below.*

If you want to include snapshots in the operation, press the SNAPSHOT button so that it lights also.

*See page 7-4 for more information about snapshots.*




PGM MODE button, EDIT NO. button, SNAPSHOT button

## Edit number display format

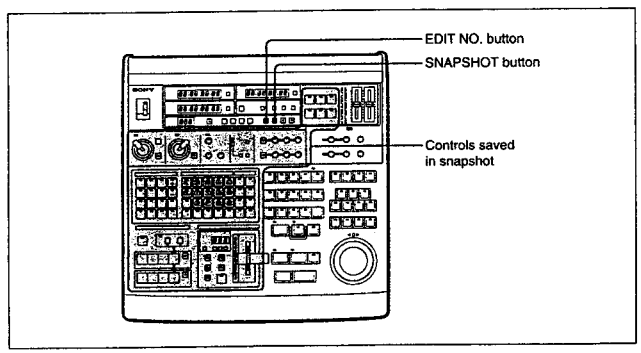
While the PGM MODE button is lit, the edit number is displayed in the following format.

| | |
|---|---|
| EDIT PGM 003 | Registered edits are displayed as three-digit numbers. |
| EDIT PGM n04 | New edits, and edits deleted from the EDL, are displayed as two-digit numbers preceded by "n" (new).<br>*See page 7-6 for more information about new edits, and page 7-9 for more information about deleted edits.* |
| EDIT PGM -02 | Skipped edits are displayed as two-digit numbers preceded by a minus sign (–).<br>*See page 7-5 for more information about skipped edits.* |

1-81

## About Snapshots

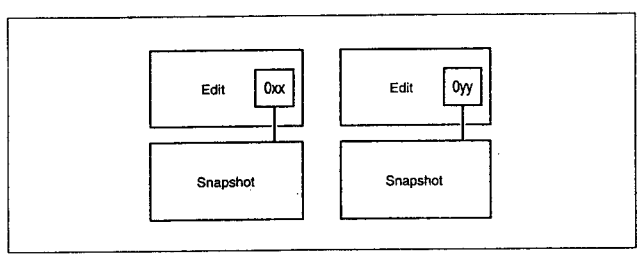
When the unit saves an edit, it can also save the settings of the controls in the AUDIO INPUT SELECT section and the video switcher/special effects section. This data is called a snapshot. Whenever you recall a snapshot from memory, controls in these sections are instantly restored to their settings at the time when the snapshot was taken.




Controls saved in a snapshot

### Snapshot numbers

Snapshots are managed using the same numbers as edits. In other words, the same number is shared by one edit and one snapshot.




Relation between edits and snapshots

### To perform an operation using snapshots only

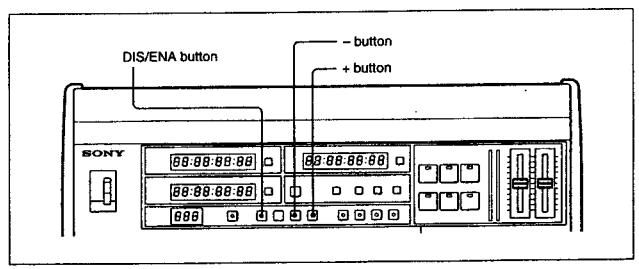
If the EDIT NO. and SNAPSHOT buttons in the EDIT PGM section are both lit when you perform an EDL operation, the operation affects edits as well as snapshots. If you want to perform an operation using snapshots only, press the EDIT NO. button, turning it off. You can register a snapshot, recall it, or perform any other EDL operation just as you would for an edit.



# Using the EDL

The following section describes how to register edits in the EDL, how to recall them, how to revise them, and so forth.

## Selecting an edit for an EDL operation




Selecting an edit for an EDL operation

Except when registering a new edit, you will always need to select the edit to work with in an EDL operation.
To select an edit, press the '+' and '–' buttons in the EDIT PGM section until the number of the edit you wish to use appears in the edit number display.

- **+ button:** The displayed number is incremented by 1 each time you press the button. If the number is 099, it changes to 001. Pressing this button together with the SHIFT button increments the displayed number by 10.
- **– button:** The displayed number is decremented by 1 each time you press the button. If the number is 001, it changes to 099. Pressing this button together with the SHIFT button decrements the displayed number by 10.

**Note**

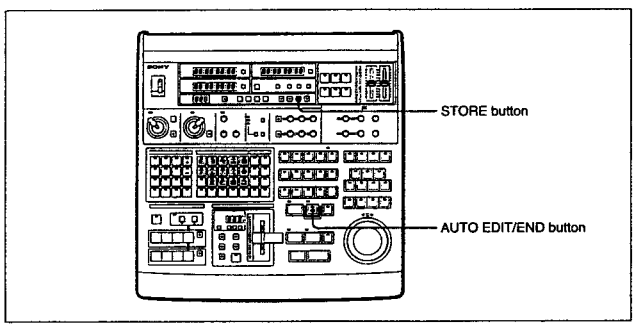
The EDIT NO. button lights if an edit has been registered for the displayed number, and goes out if not.
The SNAPSHOT button lights if a snapshot has been registered, and goes out if not.

### To skip edits during an EDL operation

When you perform an auto assembly operation involving multiple edits, or when you transfer data to and from the EDL, you can exclude specific edits from the operation.
To skip a specific edit, select that edit and press the DIS/ENA button.
The leftmost digit in the edit number display changes from '0' to a minus sign (–).
To undo the skip designation, press the DIS/ENA button once more. Note that the edit remains in EDL memory even if a minus sign is shown before its edit number.

## Registering an Edit in the EDL

- After selecting the edit, press the AUTO EDIT/END button in the AUTO CONTROL section to execute an automatic edit. The edit is registered in the EDL.
- To register the edit without executing an automatic edit, set the edit points and so on, and then press the STORE button in the EDIT PGM section. The button lights, and the edit is registered.




Registering an edit

### About new edits

When you register an edit in the EDL, the number shown in the edit number display is incremented and the unit is readied for a new edit. When displaying a new edit number, "∩" is shown in the leftmost column of the edit number display.

### When the EDL becomes full

When n99 is displayed in the edit number display, it means that you have already registered 98 edits and that the EDL is almost full. After you register edit n99, the number in the display changes as follows, depending upon the the setting of item 309 OVERFLOWED EDIT in the setup menu.

**If item 309 is set to INHIBITED:** The number changes from n99 to 099. In this state, the AUTO EDIT/END and STORE buttons are disabled, and no new edits can be registered. If you press one of these buttons, an error code is displayed in the time counter display.
Setup menu item 309 is factory preset to INHIBITED.

**If item 309 is set to OVERWRITE:** The number changes to 001. In this state, when you press the AUTO EDIT/END or STORE button, the edit previously registered under number 001 is overwritten and the display changes to 002.

*For details, see Chapter 8.*

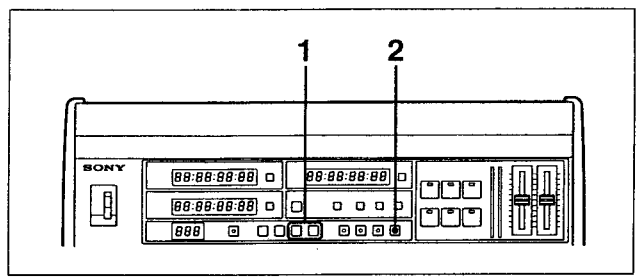
### How long are edits held in internal memory?

Edits remain in internal memory for about one week after you turn the unit off. If you want to save edits permanently, transfer them to a personal computer or other external equipment.

*For details, see "Transferring Edits To and From External Equipment" (page 7-11).*

## Recalling Edits from the EDL

You can recall edits from the EDL in order to return the control panel to the state it was in at the time the edit was saved. Proceed as follows.




Recalling an edit

**1** Press the '+' and '–' buttons to select the edit.

**2** Press the RECALL button.
The RECALL button lights. The various other buttons on the control panel light or go out, according to the settings contained in the selected edit.

# Revising and Deleting Edits

## To revise an edit

To revise an edit, first recall it from the EDL, then use the normal procedures to adjust the settings.

*For more information about how to adjust the settings, see the following sections:*
- *Edit modes: Selecting an Edit Mode (page 5-3).*
- *Sources: Selecting Video and Audio Signals (page 4-7).*
- *Edit points: Changing edit points (page 5-21).*
- *Special effects: Selecting Special Effects (page 5-25).*
- *Transition times: Setting the Transition Time (page 5-58).*

### To save an edit after recalling and revising it

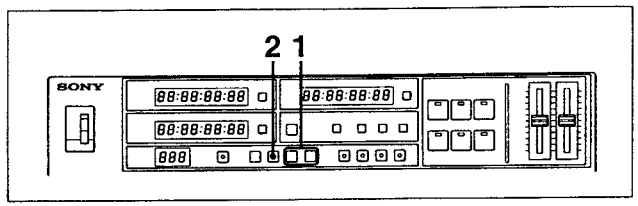
Press the AUTO EDIT/END button to execute an automatic edit, or press the STORE button.

### To undo changes after previewing a recalled edit

Press the LAST ED (= SHIFT + GO TO) button in the AUTO CONTROL section.

## To delete an edit

When you have no more use for an edit, proceed as follows to delete it from the EDL.




Deleting an edit

**1** Press the '+' and '–' buttons to select the edit.

**2** Press the DEL button.
The edit is deleted from the EDL and "∩" appears in the leftmost column of the edit number display.

**Note**

Deletions are permanent. Deleted edits cannot be restored.

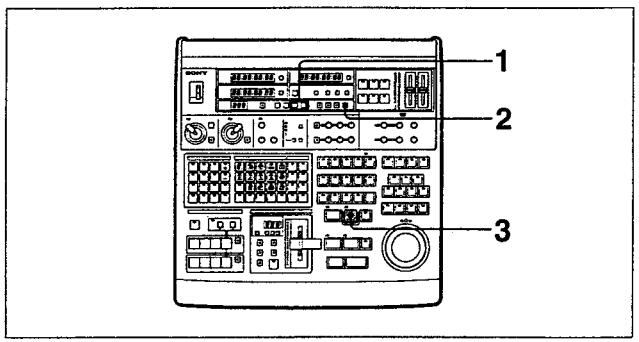
### To delete all of the edits registered in the EDL

Under setup menu item 309 OVERFLOWED EDIT, select ALL CLEAN UP.

*For details, see Chapter 8.*

## Using Registered Edits in Automatic Editing

Proceed as follows to use an edit from the EDL in automatic editing.




Using a registered edit in automatic editing

**1** Press the '+' and '–' buttons to select the edit.

**2** Press the RECALL button to recall the specified edit to the control panel.

**3** Press the AUTO EDIT/END button in the AUTO CONTROL section.
An automatic edit begins, using the edit shown in the edit number display.

Before pressing the AUTO EDIT/END button, you can also preview the edit and make any revisions that may be necessary.

*For details, see "Revising and Deleting Edits" (page 7-8).*

### To execute automatic edits continuously

You can also perform continuous automatic editing (auto assembly) using edits registered in the EDL.

*For details, see page 5-66.*

## Transferring Edits To and From External Equipment

You can connect external equipment such as a personal computer to this unit's EDL IN/OUT connector in order to transfer data to and from the EDL. Snapshots are included in the transfer if both the EDIT NO. and SNAPSHOT buttons in the EDIT PGM section are lit. Extinguish the SNAPSHOT button if you want to transfer edits only, and extinguish the EDIT NO. button if you want to transfer snapshots only.

### About the EDL format

This unit uses the Sony format for EDL data.

### Data transmission protocol

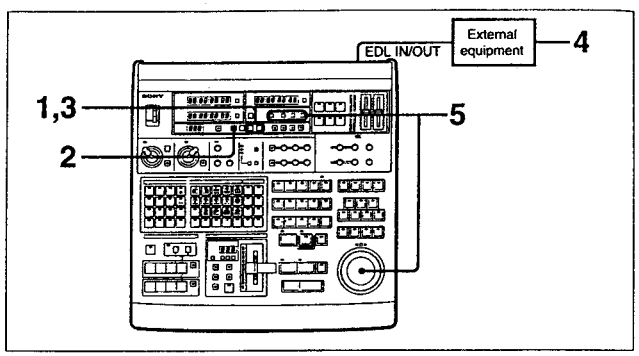
The data transmission protocol is factory preset as follows:

**Stop bits:** 1
**Data bits:** 8
**Parity:** None
**Transmission speed:** 9600 bps

1-85

## To transfer EDL data to external equipment

Designate an arbitrary edit as the initial edit. The initial edit and all subsequent edits will be transferred to the external equipment, except for those edits which you specifically exclude from the transfer.




Transferring EDL data to external equipment

**1** If you want to exclude an edit from the transfer, select the edit using the '+' and '–' buttons in the EDIT PGM section. Otherwise proceed to step **3**.

**2** Press the DIS/ENA button.
The '0' in the leftmost column of the edit number display changes to '–'. If there are any more edits that you want to skip, return to step **1**.

**3** Use the '+' and '–' buttons to designate the initial edit.

**4** Make preparations on the external equipment side to receive the data.

**5** Under setup menu item 310 EDL SWITCH, select DUMP and press the SET button. Next rotate the search dial to select GO, and press the SET button once more to begin the transmission.

*For details, see Chapter 8.*

## To import EDL data from external equipment

Proceed as follows to import data into the EDL from external equipment.

**1** Make preparations on the external equipment side to send the data.

**2** Under setup menu item 310 EDL SWITCH, select LOAD and press the SET button. Next rotate the search dial to select GO, and press the SET button once more to begin the transmission.

*For details, see Chapter 8.*

# Setup Menu Item Table

Settings for the following items can be changed with the setup menu.

| Item group | Number | Name | Settings |
|---|---|---|---|
| System Configuration | 101 | VIDEO INPUT SELECT | Composite or S-video input |
| | 102 | PREROLL TIME | Preroll time |
| | 103 | BEEP | Warning sound on/off |
| | 104 | EDIT REFERENCE | Time code type (LTC or CTL) |
| | 105 | USER BITS | User bits |
| | 106 | CTL COUNTER AUTO RESET | CTL counter auto reset mode |
| | 107 | A-ROLL MODE SELECT | Freeze error recovery |
| | 108 | A-ROLL TIMING OFFSET | Auto freeze timing |
| | 109 | TC JUMP | Require continuous time codes |
| | 110[a] | FRAME CONTROL MODE | Drop-frame mode |
| | 111 | FF/REW MODE SELECT | High-speed tape transport mode selected with FF and REW buttons |
| Switcher | 201 | WIPE PATTERN | User button wipe patterns |
| | 202 | DIGITAL CNR LEVEL | Color noise removal level |
| | 203 | DIGITAL YNR LEVEL | Y (luminance) signal noise removal level |
| | 204 | DIGITAL VERTICAL ENHANCER | Vertical enhancer trigger level |
| | 205 | COLOR CORRECTION ADJUSTMENT WIDTH | Color correction joystick range |
| | 206 (FXE-100) | VIDEO LEVEL & HUE ADJUSTMENT WIDTH | Video level & hue knob range |
| | 206 (FXE-100P) | VIDEO LEVEL & CHROMA PHASE ADJUSTMENT WIDTH | Video level & chroma phase knob range |
| | 207 | AUDIO CROSS POINT LEVEL | A/B bus audio cross point |
| | 208 | TRANSITION PATH | Transition speed |
| | 209 | H CENTER ADJUSTMENT | Horizontal sync phase |
| External interface and EDL | 301 | SYNC GRADE | Sync precision level |
| | 302 | COLOR FRAMING | Color framing or time code |
| | 303 | SYNC GRADE DISPLAY | Sync grade status display on/off |
| | 304 | RS232C BAUD RATE | RS-232C transmission rate |
| | 306 | INPUT EFFECT AUTO SELECT | Buttons or fader lever |
| | 307 | GPI1 TIMING | GPI1 pulse timing |
| | 308 | GPI2 TIMING | GPI2 pulse timing |
| | 309 | OVERFLOWED EDIT | EDL memory full recovery |
| | 310 | EDL SWITCH | Upload/download EDL data |
| VCR device constants | 401 | DEVICE TYPE PLAYER1 | Player 1 device constant |
| | 402 | DEVICE TYPE PLAYER2 | Player 2 device constant |
| | 403 | DEVICE TYPE RECORDER | Recorder device constant |

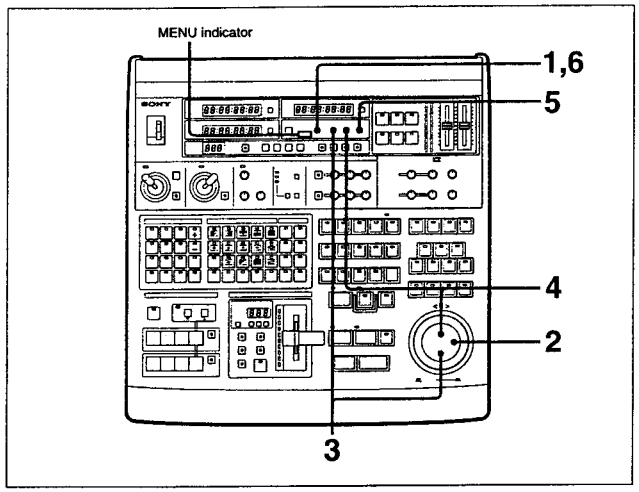
a) FXE-100 only





# Using the Setup Menu

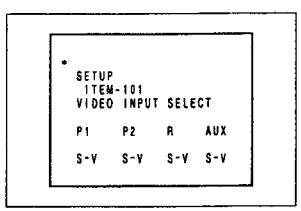
Proceed as follows to select menu items and change item settings.




Setup menu controls

**1** Press the SCREEN button, turning on the MENU indicator.

**2** Push the search dial in to select jog mode.
The most recently used setup menu item appears on the main monitor screen. The current setting flashes. If the item is set to the factory preset value, an asterisk (*) appears in the upper left corner of the screen.




*(Continued)*

3 While pressing the MENU button in the DIAL MENU section, rotate the search dial until the desired menu item appears on the screen.
Release the MENU button to select the item. The current setting flashes.
If the current item has more than one parameter item (for example P1, P2, R and AUX in menu item 101 VIDEO INPUT SELECT), rotate the search dial without pressing the MENU button until the desired parameter setting begins flashing.
"MENU" is displayed in the upper right corner of the screen while the MENU button is pressed.

4 While pressing the DATA button in the DIAL MENU section, rotate the search dial until the desired setting appears.
The setting flashes. "DATA" is displayed in the upper right corner of the screen while the DATA button is pressed.

5 Press the SET button.
The setting selected in step 4 is confirmed. "SET" is displayed in the upper right corner of the screen while the SET button is pressed.

6 Press the SCREEN button to extinguish the MENU indicator.





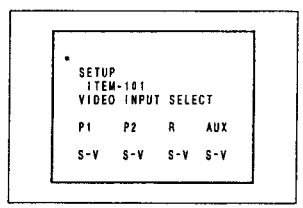
# Setup Menu Items

Items marked with an asterisk (*) are set to the factory preset value.

## System Configuration

### 101 VIDEO INPUT SELECT

Select the type of input signals for the VIDEO INPUT connectors. Rotate the search dial only to select composite video or S-video for player 1, player 2, the recorder and auxiliary source 1.

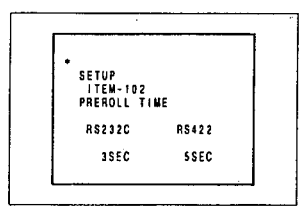



**Settings**

| | |
|---|---|
| V | Composite video signals |
| *S-V | S-video signals |

### 102 PREROLL TIME

Select the preroll time for the connected VCRs. Settings may be made separately for VCRs connected to the RS-232C and RS-422 connectors. Select RS232C or RS422 by rotating the search dial only.




**Settings**

**RS-232C connector**

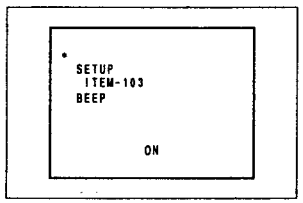
| | |
|---|---|
| *3SEC | 3 seconds |
| 5SEC | 5 seconds |
| 7SEC | 7 seconds |
| 10SEC | 10 seconds |

**RS-422 connector**

| | |
|---|---|
| 3SEC | 3 seconds |
| *5SEC | 5 seconds |
| 7SEC | 7 seconds |
| 10SEC | 10 seconds |

## 103 BEEP

Choose whether or not to beep when a key is pressed, and when an edit point is passed during preview or automatic edit execution.

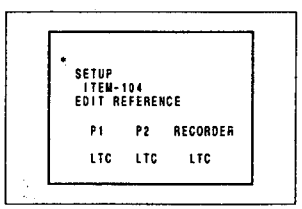



**Settings**

| | |
|---|---|
| OFF | Do not beep. |
| *ON | Beep. |

## 104 EDIT REFERENCE

Select the time data type for player 1, player 2 and the recorder. Select LTC (longitudinal time code) or CTL by rotating the search dial only.




**Settings**

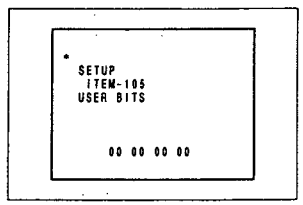
| |
|---|
| *LTC |
| CTL |

**Note**

There is a greater possibility that errors will occur during high-speed tape transport (for example, between the preroll point and the IN point) when CTL signals are used. This item should normally be set to LTC unless there is no time code recorded on the tape.

## 105 USER BITS

You can freely use the 32 bits in the user bits section of time code to record information such as dates or cut numbers. Rotate the search dial only to select two-digit hexadecimal values between 00 and FF.

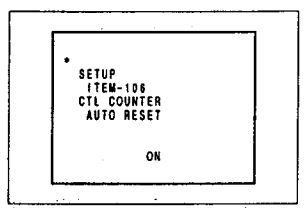



**Settings**

| |
|---|
| *00 |
| 00 to FF |

## 106 CTL COUNTER AUTO RESET

Choose whether or not to automatically reset the CTL counter when the unit is turned on and off, and when tapes are ejected.



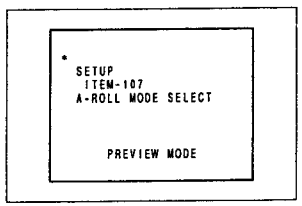

**Settings**

| | |
|---|---|
| *ON | Reset. |
| OFF | Do not reset. |

1-89

## 107 A-ROLL MODE SELECT

In A-roll editing, some recorder VCRs enter E-E mode before the IN point, making it impossible to read in a freeze frame. When this occurs, select PREVIEW MODE under this item before executing the edit.




**Settings**

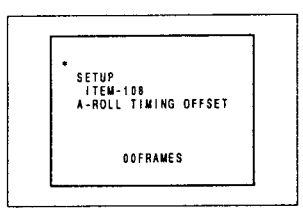
| | |
|---|---|
| AUTO EDIT MODE | When AUTO EDIT/ END button is pressed, read in frame two frames before recorder IN point and execute edit immediately. |
| *PREVIEW MODE | When AUTO EDIT/ END button is pressed, enter preview mode and read in playback frame one frame before recorder IN point. Then enter edit mode and begin recording. |

**Note**

When this item is set to PREVIEW MODE the unit requires more time to execute an edit.

## 108 A-ROLL TIMING OFFSET

In A-roll editing, the frame before the recorder IN point is read into digital frame memory. But depending on the VCR in use, automatic freeze timing may be off by a certain number of frames. If the unit is unable to read in the correct freeze frame, use this item to specify an offset in frames between the correct frame and the frame which was actually read in. For example, if the frame actually read in was two frames after the IN point, set this menu item to –03 FRAMES to read in the frame one frame before the IN point.



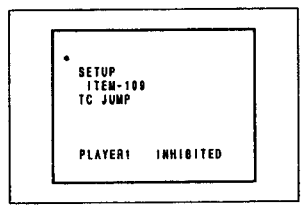

**Settings**

| | |
|---|---|
| *00FRAMES | Do not adjust timing. |
| –10 to 10 FRAMES | Adjust timing by number of frames. |



## 109 TC JUMP

Select whether or not to continue editing when non-consecutive time codes are discovered between the preroll point and the IN point. To select settings for player 1, player 2, and the recorder, rotate the search dial only while pressing the DATA button.




**Settings**

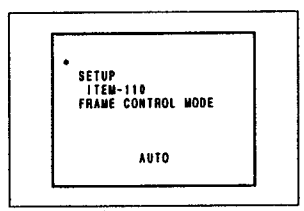
| | |
|---|---|
| ALLOWED | Continue editing despite non-consecutive time codes. |
| *INHIBITED | Do not continue editing. |

**Note**

When time codes are not consecutive, it takes longer to cue up an edit point.

## 110 FRAME CONTROL MODE (FXE-100 only)

Select the frame control mode for time code processing (drop-frame or non-drop frame mode).




**Settings**

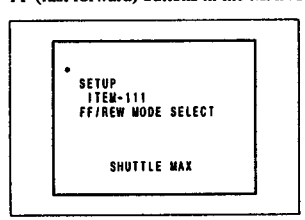
| | |
|---|---|
| *AUTO | Use the mode found on recorder tape. |
| DF | Drop-frame mode. |
| NDF | Non-drop frame mode. |

**Note**

If you execute a first edit when this item is set to AUTO, time code is inserted in non-drop frame mode.

## 111 FF/REW MODE SELECT

Select the high-speed transport mode selected by pressing the REW (rewind) and FF (fast forward) buttons in the MANUAL CONTROL section.




**Settings**

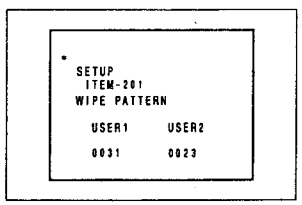
| | |
|---|---|
| *SHUTTLE MAX | Maximum-speed shuttle mode |
| FF/REW | Fast forward and rewind mode |

# Switcher

## 201 WIPE PATTERN

Select the patterns to assign to the USER1 and USER2 buttons in the WIPE PATTERN section by choosing a four-digit decimal pattern code number for each button. Rotate the search dial only to select the button for assignment.

*For wipe pattern code numbers, see the table in the Appendixes (page A-11).*

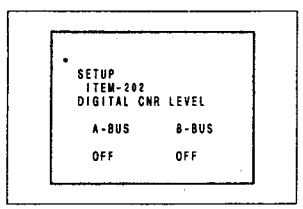



**Default user button assignments**

| USER 1 | USER 2 |
|---|---|
| EXPLOSION 0031 | 0023 |

## 202 DIGITAL CNR LEVEL

Select the color noise reduction (CNR) level for video read into digital frame memory. Rotate the search dial only to select settings for bus A and bus B.




**Settings**

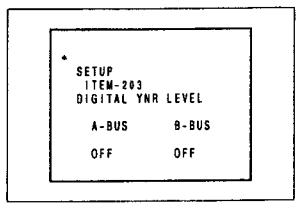
| | |
|---|---|
| *OFF | No CNR |
| LOW | Low level |
| MIDDLE | Middle level |
| HIGH | High level |

**Note**

If CNR is set to HIGH, a faint color shadow remains from the previous frame when frames are switched. This is not a malfunction in the unit.

## 203 DIGITAL YNR LEVEL

Select the luminance (Y signal) noise reduction level for video read into digital frame memory. Rotate the search dial only to select settings for bus A and bus B.

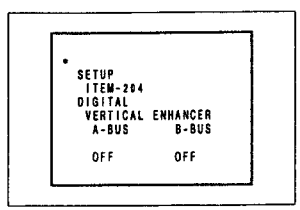



**Settings**

| | |
|---|---|
| *OFF | No YNR |
| VERY LOW | Very low level |
| LOW | Low level |
| MIDDLE | Middle level |
| HIGH | High level |

## 204 DIGITAL VERTICAL ENHANCER

Select the trigger level for the vertical enhancement circuits, which produce sharp edges in the picture. Rotate the search dial only to select settings for bus A and bus B.

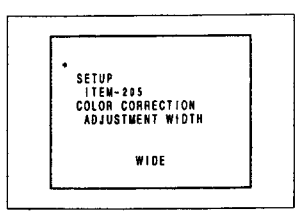



**Settings**

| | |
|---|---|
| *OFF | No vertical enhancement |
| VERY LOW | Very low level |
| LOW | Low level |
| MIDDLE | Middle level |
| HIGH | High level |

## 205 COLOR CORRECTION ADJUSTMENT WIDTH

Select the COLOR CORRECTION joystick range.

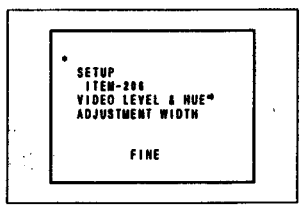



**Settings**

| | |
|---|---|
| *WIDE | Coarse adjustment |
| FINE | Fine adjustment |

## 206 VIDEO LEVEL & HUE ADJUSTMENT WIDTH (FXE-100) VIDEO LEVEL & CHROMA PHASE ADJUSTMENT WIDTH (FXE-100P)

Select the adjustment range for the HUE (FXE-100) or CHROMA PHASE (FXE-100P), LUMINANCE and CHROMINANCE knobs in the VIDEO LEVEL & HUE (FXE-100) or VIDEO LEVEL & CHROMA PHASE (FXE-100P) section.




a) FXE-100: VIDEO LEVEL & HUE
FXE-100P: VIDEO LEVEL & CHROMA PHASE

**Settings**

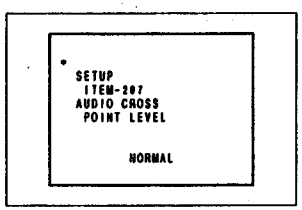
| | |
|---|---|
| WIDE | Coarse adjustment |
| *FINE | Fine adjustment |

**Note for FXE-100P**

When adjusting the color subcarrier phase, use a vectorscope to measure the adjustments.

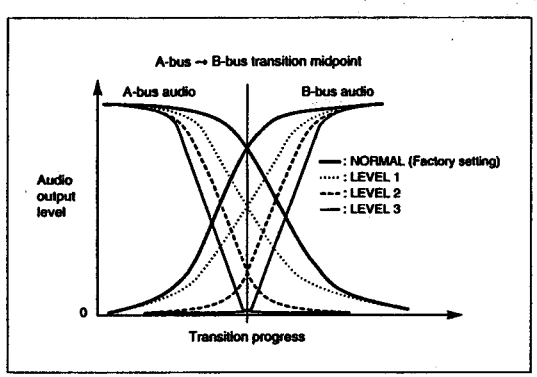
## 207 AUDIO CROSS POINT LEVEL

Select the audio cross point, or level at the transition midpoint where the audio signals overlap when switching between the two buses. Audio output is very low at the LEVEL 3 setting, and increases in volume for both the A and B buses from quiet at the LEVEL 2 setting to normal at the NORMAL setting.




**Settings**

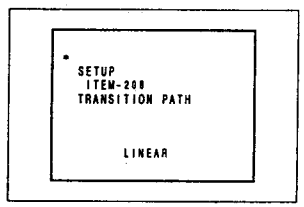
| | |
|---|---|
| LEVEL 1 | Rather low volume |
| LEVEL 2 | Low volume |
| LEVEL 3 | Very low volume |
| *NORMAL | Normal volume |




Transition from bus A to bus B

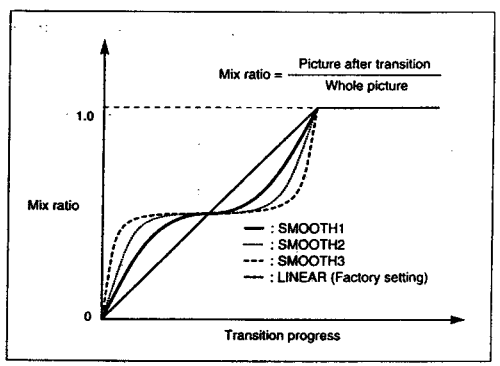
## 208 TRANSITION PATH

Select the speed at which video is switched during a transition. A-bus video and B-bus video are mixed at identical ratios under the SMOOTH1 to SMOOTH3 settings, and at a linear ratio under the LINEAR setting. The settings in this menu are especially effective when you have selected a mix as the transition effect.




**Settings**

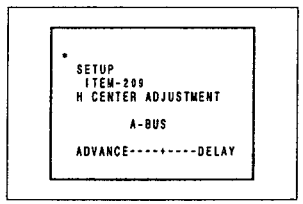
| | |
|---|---|
| SMOOTH1 | Switch quickly. |
| SMOOTH2 | Switch rather quickly. |
| SMOOTH3 | Switch slowly. |
| *LINEAR | Switch at a constant rate. |




Transition path

### 209 H CENTER ADJUSTMENT

Adjust to control picture stability and horizontal position (horizontal sync phase). While pressing the DATA button, rotate the search dial counterclockwise to move the cross cursor toward ADVANCE (the picture shifts to the left), and clockwise to move it toward DELAY (the picture shifts to the right). Rotate the search dial only to select settings for bus A and bus B.




**Settings**

| | |
|---|---|
| *Center | Do not adjust the phase. |
| ADVANCE | Advance the phase. |
| DELAY | Delay the phase. |

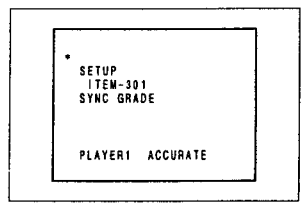
**Note**

Proceed carefully when adjusting the sync phase.

## External Interface and EDL

### 301 SYNC GRADE

Select synchronizing precision for VCRs connected to this unit. Rotate the search dial only to select player 1, player 2 and the recorder.

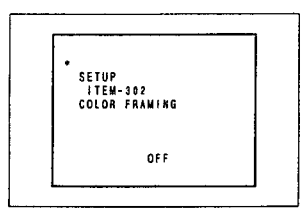



**Settings**

| | |
|---|---|
| *ACCURATE | Synchronization is accurate to ±0 frames. The unit monitors VCR synchronization, and does not execute an edit until the VCRs are completely locked. If they cannot be synchronized after three preroll attempts, the accuracy is lowered to +/–1 FRAME. |
| +/– 1 FRAME | Synchronization is accurate to ±1 frame. Executes an edit if all checkpoints are accurate to within one frame. If VCRs cannot be synchronized after two preroll attempts, the accuracy is lowered to ROUGH. |
| ROUGH | Executes an edit as soon as sync signals coincide, however briefly. If VCRs cannot be synchronized after two preroll attempts, the accuracy is lowered to PREROLL & PLAY. |
| PREROLL & PLAY | No synchronization. Execute edit immediately after preroll. |

### 302 COLOR FRAMING

Select whether color framing or time code should be given priority when recording on the master tape.



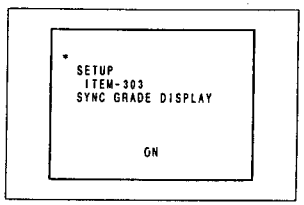

**Settings**

| | |
|---|---|
| *OFF | Use time codes recorded on the master tape. |
| VTR SETTING | Use the color framing settings selected on the recorder VCR side. |

1-93

## 303 SYNC GRADE DISPLAY

Select whether or not to include the VCR sync grade, set under menu item 301, in the main monitor status display.

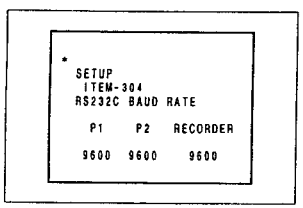



**Settings**

| | |
|---|---|
| OFF | Do not display. |
| *ON | Display. |

## 304 RS232C BAUD RATE

Select the data transmission rate for transmissions to equipment connected to the RS-232C connectors. Rotate the search dial only to set the rate for player 1, player 2 and the recorder.

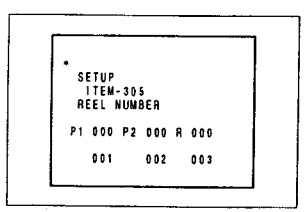



**Settings**

| | |
|---|---|
| *9600 | 9600 bps |
| 19200 | 19200 bps |

## 305 REEL NUMBER

The number shown to the right of each VCR (P1, P2 and R) is the reel number currently assigned in the EDL. Rotate the search dial only to set reel numbers for tapes loaded in player 1, player 2 and the recorder.




**Settings**

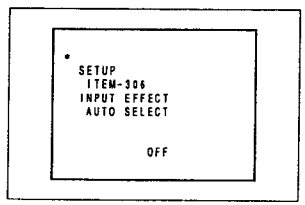
| | |
|---|---|
| 0 to 9 | Most significant digit |
| 00 to 99 | Two least significant digits |

**Default settings**

| | |
|---|---|
| P1 | 001 |
| P2 | 002 |
| R | 003 |

## 306 INPUT EFFECT AUTO SELECT

Either the fader lever or the A-BUS and B-BUS buttons in the INPUT EFFECT section can be used to select the bus affected by input effects. Use this menu item to choose automatic selection by the fader lever, or manual selection by the A-BUS and B-BUS buttons.

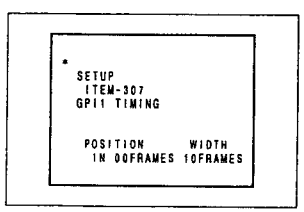


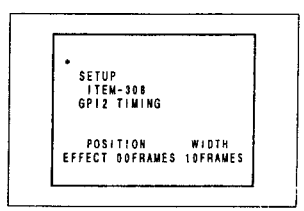

**Settings**

| | |
|---|---|
| *OFF | Input effect bus selected by A-BUS and B-BUS buttons, regardless of fader lever position. |
| ON | Input effect bus selected by fader lever position. A-BUS and B-BUS buttons are disabled and do not light when pressed. |

## 307 GPI1 TIMING
## 308 GPI2 TIMING

Select the timing and pulse width of pulses output from the GPI1 OUT and GPI2 OUT connectors. Pulses may be output at the IN point, at the effect starting point, or at the OUT point, as selected here.
When this menu is displayed, one of the IN, EFFECT or OUT settings will be visible and flashing. If, at this point, you press the DATA button and rotate the search dial, you can select the other settings. When you reach the desired setting, release the DATA button and the frame count begins to flash. In this state, you can rotate the search dial while pressing the DATA button to select an offset in frames between the IN, effect or OUT point and the point where the pulses are actually output. Or you can rotate the search dial only to select the pulse width.




(Continued)

**Settings**

**Output points**

| | |
|---|---|
| *IN | IN point (GPI1 factory default) |
| *EFFECT | Effect starting point (GPI2 factory default) |
| OUT | OUT point |

**Output timing**

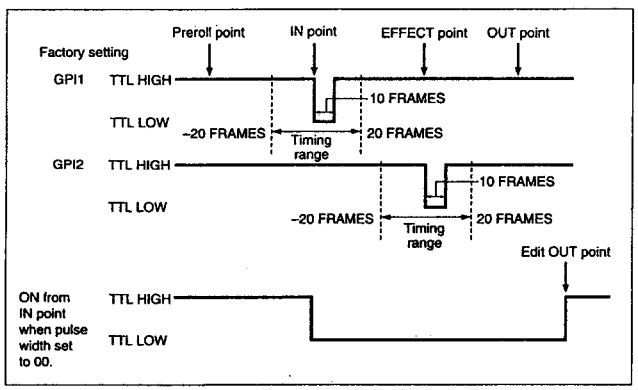
| |
|---|
| *00FRAMES |
| –20 to 20 FRAMES |

**Pulse width**

| |
|---|
| *10FRAMES |
| 00 to 10FRAMES[a] |

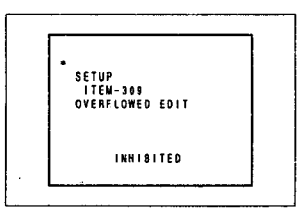
a) When set to 00, the GPI pulse remains ON until the end of the edit.

The range of selectable pulse timing offsets is as follows.




## 309 OVERFLOWED EDIT

Specifies how the unit should respond when an attempt is made to register a new edit when the EDL is already full (already contains 99 edits).

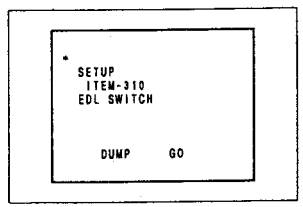



**Settings**

| | |
|---|---|
| *INHIBITED | The new edit is not registered, and an error code is displayed in the time counter display. |
| OVERWRITE | Edit number 001 is overwritten by the new edit. |
| ALL CLEAN UP | All edits are deleted from EDL memory. |

## 310 EDL SWITCH

Transmit or receive EDL data through the RS-232C connectors.
Display the DUMP item when you want to export data, or the LOAD item when you want to import data, and then press the SET button. Next rotate the search dial to select GO and press the SET button once more to begin the transmission.
To stop the transmission, rotate the search dial to select CANCEL and then press the SET button.




**Settings**

| | |
|---|---|
| *DUMP | Transmit data. |
| LOAD | Receive data. |

| | |
|---|---|
| *GO | Begin transmission |
| CANCEL | Stop transmission |

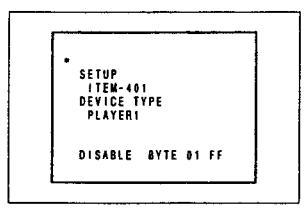
# VCR Device Constants

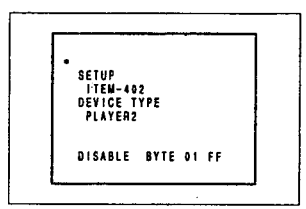
## 401 DEVICE TYPE PLAYER 1
## 402 DEVICE TYPE PLAYER 2
## 403 DEVICE TYPE RECORDER

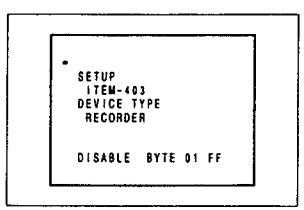
Using status signals sent by the VCR, the FXE-100 is able to automatically identify many commonly used VCRs, and to control tape transport for those VCRs by referring to an internal device constant table.
VCR device constants are made up of 15 data items, each item being expressed as a two-digit hexadecimal number.

*For details, see "VCR constant data items" (page 8-21) and "Automatically detected VCRs and internal device constants" (page 8-22).*

Normally it should not be necessary to set VCR constants manually. But depending on operating conditions and the type of VCR, the unit is sometimes unable to achieve the precise control needed for editing. In such cases, you can use these menu items to define new device constants for each VCR.
To define a device constant, set the DISABLE/ENABLE parameter to ENABLE, select the data byte (a decimal number between 00 and 15) which you want to modify, and then select a two-digit hexadecimal value for that byte.
When not using a newly defined device constant, return the DISABLE/ENABLE parameter to DISABLE.




| Settings | |
|---|---|
| *DISABLE | Use the unit's device constant table instead of user-defined device constants. |
| ENABLE | Use user-defined device constants. |

| Item number | Value |
|---|---|
| BYTE 01 to 15 (decimal) | 00 to FF (hexadecimal) |

### VCR constant data items

VCR constant data items

| Item number | Setting | Meaning |
|---|---|---|
| BYTE 01<br>BYTE 02 | Device type | Defines the VCR type.<br>**Factory default:** BYTE 01: FF<br>BYTE 02: FF |
| BYTE 03<br>BYTE 04 | Minimum preroll time | Specifies the minimum preroll time required by the VCR in units of frames. The preroll time specified here is always used, even if setup menu item 102 PREROLL TIME is used to specify a shorter time. BYTE 03 is the most significant byte.<br>**Factory default:** 00 5A (FXE-100) or 00 55 (FXE-100P) |
| BYTE 05 | Edit delay | Corrects for the delay in frames from the time when a REC command is sent to the VCR until the time when recording actually starts.<br>**Factory default:** 05 |
| BYTE 06 | E-E delay | Corrects for the delay in frames from the time when a PB/EE command is sent to the VCR until the time when it actually enters preview mode.<br>**Factory default:** 05 |
| BYTE 07 | Overrun delay | Corrects for the overrun in frames past a specified preroll point in a preroll stop.<br>**Factory default:** 03 (FXE-100) or 02 (FXE-100P) |
| BYTE 08 | Trajectory | Specifies the optimum speed curve for preroll. Higher values are required for VCRs with lower positionability.<br>**Factory default:** 84 |
| BYTE 09 | Time code read delay | Corrects for the delay in frames from the time when a VCR receives a tape transport command until the time when it is able to read time code.<br>**Factory default:** 0A |
| BYTE 10 | Pinch-on delay | Corrects for the delay in frames from the time when a VCR receives a tape transport command until it actually begins moving the tape.<br>**Factory default:** 08 (FXE-100) or 07 (FXE-100P) |
| BYTE 11 | Post-sync delay (–) | For the transition to playback after synchronization, specifies the optimum command delay in frames for servo-lock from lower speeds.<br>**Factory default:** FB |
| BYTE 12 | Post-sync delay (+) | For the transition to playback after synchronization, specifies the optimum command delay in frames for servo-lock from higher speeds.<br>**Factory default:** 00 |
| BYTE 13 | MODE 1 | Bits 1 to 7: Specify the maximum framing value permitted by the VCR format.<br>0: 2-field lock<br>1: 4-field lock<br>3: 8-field lock<br>Bit 8: Specifies whether or not the VCR permits CTL (timer) interpolation of time code.<br>1: Possible<br>0: Not possible<br>**Factory default:** 80 |
| BYTE 14 | Mode 2 | Bit 1: Specifies whether color framing status from the VCR is enabled or disabled.<br>1: Enabled<br>0: Disabled<br>Bits 2 to 8: Specify the maximum time in frames until VCR frame lock.<br>**Factory default:** 2E (FXE-100) or 2A (FXE-100P) |
| BYTE 15 | Max preroll speed | Specifies the maximum tape speed during preroll as a multiple of normal tape speed. When set to FF, the speed is the same as fast forward and rewind speed.<br>**Factory default:** FF |

### Automatically detected VCRs and internal device constants

The FXE-100/100P is able to detect VCRs in the following table automatically, and to control them using the constant values (hexadecimal) in data items 3 through 15.

FXE-100 internal device constants

| Data item / VCR type | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VO-9800 | 10 | 48 | 00 | 96 | 08 | 08 | 04 | 0C | 0A | 04 | FF | 00 | 00 | 78 | 08 |
| VO-9850 | 10 | 4C | 00 | 96 | 08 | 08 | 04 | 0C | 0A | 04 | FF | 00 | 00 | 78 | 08 |
| SVP-9000 | 10 | 28 | 00 | 96 | 08 | 08 | 05 | 8A | 0A | 04 | FF | 00 | 00 | 78 | 0A |
| SVO-9600 | 10 | 2C | 00 | 96 | 08 | 08 | 05 | 8A | 0A | 04 | FF | 00 | 00 | 78 | 0A |
| PVW-2600 | 20 | 40 | 00 | 96 | 05 | 05 | 03 | 04 | 0A | 08 | FB | 00 | 81 | 19 | FF |
| PVW-2800 | 20 | 41 | 00 | 96 | 05 | 05 | 03 | 04 | 0A | 08 | FB | 00 | 81 | 19 | FF |
| PVW-2650 | 20 | 42 | 00 | 96 | 05 | 05 | 03 | 84 | 0A | 08 | FB | 00 | 9D | 19 | FF |
| UVW-1600 | 20 | 50 | 00 | 5A | 05 | 05 | 03 | 84 | 0A | 08 | FB | 00 | 80 | 2E | FF |
| UVW-1800 | 20 | 51 | 00 | 5A | 05 | 05 | 03 | 84 | 0A | 08 | FB | 00 | 80 | 2E | FF |
| EVO-9800/9800A | 80 | 08 | 00 | 96 | 08 | 08 | 07 | 94 | 0A | 07 | FC | 00 | 00 | 5A | 07 |
| EVO-9850 | 80 | 0C | 00 | 96 | 05 | 05 | 07 | 80 | 0A | 06 | FC | 00 | 00 | 5A | 0A |

FXE-100P internal device constants

| Data item / VCR type | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VO-9800P | 11 | 48 | 00 | 7D | 08 | 08 | 04 | 0C | 0A | 04 | FF | 00 | 01 | 64 | 08 |
| VO-9850P | 11 | 4C | 00 | 7D | 08 | 08 | 04 | 0C | 0A | 04 | FF | 00 | 01 | 64 | 08 |
| SVP-9020 | 11 | 28 | 00 | 7D | 08 | 08 | 05 | 8A | 0A | 04 | FF | 00 | 01 | 4B | 0A |
| SVO-9620 | 11 | 2C | 00 | 7D | 08 | 08 | 05 | 8A | 0A | 04 | FF | 00 | 01 | 4B | 0A |
| PVW-2600P | 21 | 40 | 00 | 7D | 05 | 05 | 03 | 04 | 0A | 07 | FF | 00 | 83 | 31 | FF |
| PVW-2800P | 21 | 41 | 00 | 7D | 05 | 05 | 03 | 04 | 0A | 07 | FF | 00 | 83 | 31 | FF |
| PVW-2650P | 21 | 42 | 00 | 7D | 05 | 05 | 03 | 84 | 0A | 08 | FB | 00 | 9F | 19 | FF |
| UVW-1600P | 21 | 50 | 00 | 55 | 05 | 05 | 02 | 84 | 0A | 07 | FB | 00 | 80 | 2A | FF |
| UVW-1800P | 21 | 51 | 00 | 55 | 05 | 05 | 02 | 84 | 0A | 07 | FB | 00 | 80 | 2A | FF |
| EVO-9800P | 81 | 08 | 00 | 7D | 08 | 08 | 08 | 8E | 0A | 07 | FC | 00 | 01 | 5B | 07 |
| EVO-9850P | 81 | 0C | 00 | 7D | 05 | 05 | 07 | 80 | 0A | 0A | FC | FE | 01 | 4C | 0A |

*For more information about connecting VCRs other than those listed above, please contact qualified Sony service personnel.*

1-97

# Error Messages

When you try to perform an illegal operation, or when there is a problem with the connected VCRs, an error code is shown in the appropriate time counter display and an error message is shown in the main monitor status display. Take the action shown below to correct the problem.

**Note**

Error messages use the following abbreviations to refer to VCRs.
**P1:** Player 1
**P2:** Player 2
**R:** Recorder

| Error code | Error message | Meaning | Action to take |
|---|---|---|---|
| 01 | CANNOT CONTROL DUE TO VTR LIMITATION | A limitation on the VCR side prevented execution of an edit setting. | Consult your VCR manuals and execute the edit again after removing the limitation. |
| 02 | CANNOT CUE UP P1, P2, R | The specified edit point cannot be cued up. | Check whether the edit point exists on the tape. If time code data on the tape is discontinuous, use setup menu item 109 TC JUMP to select discontinuous time code for the VCR, then try to cue up again. |
| 03 | CANNOT EXECUTE P1, P2, R | Edit execution began but could not be completed. | Check the VCR(s) which caused the failure. |
| 04 | CANNOT PRESET TIME CODE P1, P2, R | The unit cannot preset time code because VCR time code switches are set to prevent it. | • Set VCR switches to allow the unit to preset time code.<br>• Check to be sure that the VCR supports time code recording. |
| 05 | CANNOT READ TIME CODE P1, P2, R | Time code could not be read when the MARK IN or MARK OUT button in the TIME MARK section was pressed. | Check the time code selected under setup menu item 104 EDIT REFERENCE. |
| 06 | CANNOT RECORD | Recording did not start when the AUTO EDIT/END button or the REC button in the MANUAL CONTROL section was pressed. | • Check to be sure that the tape is not write inhibited.<br>• Check to be sure that the VCR connected to the recorder connector on the connector panel supports recording as well as playback. |
| 07 | CANNOT SYNCHRONIZE P1, P2, R | The listed VCRs could not be synchronized at the specified precision. | Use setup menu item 301 SYNC GRADE to lower the synchronizing precision for the listed VCRs. |
| 08 | CODE CONFLICTED P1, P2, R | Conflicting data was entered in the setup menu. | Enter the data again, removing the conflict. |
| 09 | DEFINE DURATION | An attempt was made to execute an edit without setting a duration for auxiliary source 1. | Set the duration for auxiliary source 1 (AUX). |
| 10 | DEFINE EDIT MODE | Edit execution was attempted without selecting an edit mode. | Select an edit mode. |
| | | The AUDIO SPLIT button was pressed to perform a split edit in assemble mode. | Select insert mode to perform a split edit. |

| Error code | Error message | Meaning | Action to take |
|---|---|---|---|
| 11 | DEFINE IN POINT | Edit execution was attempted without defining a source IN point. | Define the IN point. |
| 12 | DEFINE OUT POINT | An attempt was made to register an edit in the EDL without defining a recorder OUT point. Or edit execution was attempted using an invalid recorder OUT point. | Define a valid recorder OUT point. |
| 13 | EDIT NOT FOUND | In an edit recall operation, the specified edit could not be found in the EDL. | Specify a different edit number. |
| 14 | EDL ERROR | The EDL may be corrupt. | Check the contents of the EDL. |
| 15 | ERROR | An invalid operation was attempted, or invalid data was entered. | Check the operation, or re-enter the data. |
| 16 | EDL COMM ERROR | An error occurred during communications with equipment connected to the EDL IN/OUT connector. | Check the external communications program to be sure that it is using the correct data transmission protocol (*see page 7-11*). |
| 17 | ILLEGAL FADE TIME | The fade in transition time is longer than the FROM source duration. | Reset the fade in transition time to a value shorter than the FROM source duration. |
| | | The fade out transition time is longer than the TO source duration. | Reset the fade out transition time to a value shorter than the TO source duration. |
| 18 | ILLEGAL SOURCE | An invalid source was specified. | Specify a valid source. |
| 19 | ILLEGAL TRANS TIME | The effect transition time is longer than the TO source duration. | Reset the effect transition time to a value shorter than the TO source duration. |
| 20 | MEMORY FULL | An attempt was made to register an edit in the EDL when EDL memory was already full. | Transfer unneeded edits to external equipment, then delete them from the EDL. |
| 21 | ROM ERROR | A checksum error occurred in the system program. | There may be an error in system firmware. Contact a Sony service representative. |
| 22 | UNMOUNTED REEL NUMBER P1, P2, R | Reel numbers specified for an edit recall operation could not be found on any of the current sources. | To execute a recalled edit, mount the required reels on the VCRs and specify the reel numbers using setup menu item 305 REEL NUMBER. |

1-98

# In Case of Trouble

If any difficulty should arise during operation, first check the power and connections, then go through the following list. Should the difficulty persist, contact your Sony dealer or a Sony service representative.

| Problem | Possible causes and remedies |
|---|---|
| **No picture on the monitor.** | • Make sure that the VCRs and monitors are turned on.<br>• Check connections to external equipment[a] *(see "Connections", page 3-3).*<br>• Make sure that the VCRs are in playback mode *(see "Controlling the VCRs", page 4-2).* |
| **No signals from equipment connected to input connectors.** | Check setup menu item 101 VIDEO INPUT SELECT. If you have connected a source to the VIDEO INPUT connectors, the setting should be V, for composite video signals. (The factory default setting is S-V, for S-video signals.) |
| **The wrong video is shown on the monitor.** | • Select the desired signals with the buttons in the VIDEO INPUT SELECT section.<br>• Check video input connections [a]. |
| **The monitor shows only a grey background.** | • Check that cassettes are loaded in the players.<br>• A button in the VIDEO INPUT SELECT section may have selected a video input connector with no video input. |
| **The monitor shows only a white or black background.** | • If the BKGD button in the VIDEO INPUT SELECT section is lit, press to turn it off.<br>• If the WHITE FADE or BLACK FADE button in the EFFECT TRANSITION section is lit, press to turn it off. |
| **Video quality is poor.** | • After verifying that there is no problem with the tape, adjust the video with the knobs in the VIDEO LEVEL & HUE section *(see "Adjusting Video Signals", page 4-15).*<br>• Verify that the posterization effect is off (the POSTRZ button in the INPUT EFFECT section is off).<br>• Verify that the zoom effect is off (the ZOOM button in the INPUT EFFECT section is off).<br>• Verify that coarsest or finest mosaic is not being applied. If the MOSAIC button is lit, try pressing the '+' or '–' button. |
| **The wrong audio signals are heard.** | • Select the right signals with the buttons in the AUDIO INPUT SELECT section.<br>• Check audio input connections [a]. |
| **There is no input from the microphone.** | If the AUX 2/MIC switch in the audio mixer section is set to AUX 2, set it to MIC. |
| **There is no input from auxiliary source 2.** | If the AUX 2/MIC switch in the audio mixer section is set to MIC, set it to AUX 2. |
| **Audio volume is too loud or too soft.** | Adjust the volume *(see "Adjusting Audio Levels", page 4-16).* |
| **The audio is distorted.** | If the audio input connectors on this unit are connected to XLR 3-pin connectors on the audio equipment, set the 600 Ω termination switches to ON. |
| **The video switches too quickly or too slowly.** | Set the effect transition time *(see "Setting the Transition Time", page 5-58).* |
| **The fader lever doesn't move.** | Extinguish the AUTO TRANS/PAUSE button *(see "Note on the fader lever", page 4-13).* |

a) Check to be sure that all cables are firmly seated in the connectors.

| Problem | Possible causes and remedies |
|---|---|
| **The wrong mix type or wipe patterns are used.** | If any unneeded buttons are lit in the MIX/EFFECT or WIPE PATTERN sections, press to turn them off. |
| **How can I turn off the beep?** | Set setup menu item 103 BEEP to OFF. |
| **VCR cannot be controlled.** | • Make sure that the VCR is turned on.<br>• Check connections to the VCR[a] *(see "Connections", page 3-3).*<br>• Turn the unit off, and then turn it on again after veryifying that the RS-422/RS232C switches on the connector panel are set to the appropriate positions for the VCR.<br>• If the VCR's REMOTE/LOCAL switch is set to LOCAL, set it to REMOTE. |
| **Nothing is shown in a time counter display.** | • Make sure that the VCR is turned on.<br>• Check connections to the VCR[a] *(see "Connections", page 3-3).*<br>• If the VCR's REMOTE/LOCAL switch is set to LOCAL, set it to REMOTE. |
| **Time counter display doesn't change.** | The time counter does not change if time code or CTL signals are not recorded on the tape. Check by setting setup menu item 104 EDIT REFERENCE to CTL. If there is still no change in the time counter display, then there are no CTL signals recorded on the tape. |
| **Auto edit or preview does not begin when the AUTO EDIT/END or PREVIEW button is pressed.** | • The master tape cassette may be write inhibited.<br>• Check connections to the VCRs[a] *(see "Connections", page 3-3).*<br>• If the tape has played to the end, rewind it.<br>• The VCR's input selection switch may be set incorrectly.<br>• The VCR's NORMAL/EDIT switch may be set incorrectly.<br>• In insert mode:<br>— The wrong insert mode button may have been pressed *(see "Insert Mode", page 5-3).*<br>— CTL signals must be recorded on the entire tape in order to conduct a preview or automatic edit.<br>• In assemble mode:<br>CTL signals must be recorded on the tape, at least around the first IN point. For a new tape, record black signals at the beginning of the tape *(see "Executing a first edit", page 5-7).*<br>• Consult your VCR manuals if the VCR's AUTO OFF indicator is flashing. |
| **In a preview or automatic edit, the actual edit points are not the ones I set.** | • When using CTL time data to set edit points, you may have reset a time counter by pressing the RESET button on a counter display panel.<br>• Depending on the VCR, the actual edit points may differ slightly from those set with this unit. Adjust using the TRIM– (=SHIFT + IN) and TRIM+ (=SHIFT + OUT) buttons *(see "Changing edit points" page 5-21).* |
| **There is picture breakup between edits.** | • There may be a break in CTL signals between the edits.<br>• Using the REC button causes breakup in the picture after an edit. Connect edits using the AUTO EDIT/END button. |
| **There are stripes on the monitor screen.** | Guard band noise is sometimes seen during playback at speeds other than +1 times normal speed. This is not a malfunction. |
| **The picture is unstable.** | • There may be noise in the input signals from the VCR. Check by selecting another VCR. The picture may also be unstable if CTL signals on the tape are noisy or irregular.<br>• Recorder video may be unstable when a search (high-speed playback) is carried out on a player. Stop the player, or put it into normal-speed playback mode.<br>• The VCR may not be receiving the correct input of reference video or sync signals. |

a) Check to be sure that all cables are firmly seated in the connectors.

1-99

## In Case of Trouble

| Problem | Possible causes and remedies |
|---|---|
| **The picture drifts vertically.** | Check the position of the monitor's vertical sync control. |
| **The setup menu does not appear, even though the MENU indicator in the SCREEN section is lit.** | Press the search dial to put it into the jog (depressed) position. |
| **Vertical lines appear in the picture when the zoom input effect is used.** | Vertical lines sometimes appear during zoom playback, depending on the capability of the VCR. This is not a malfunction. |



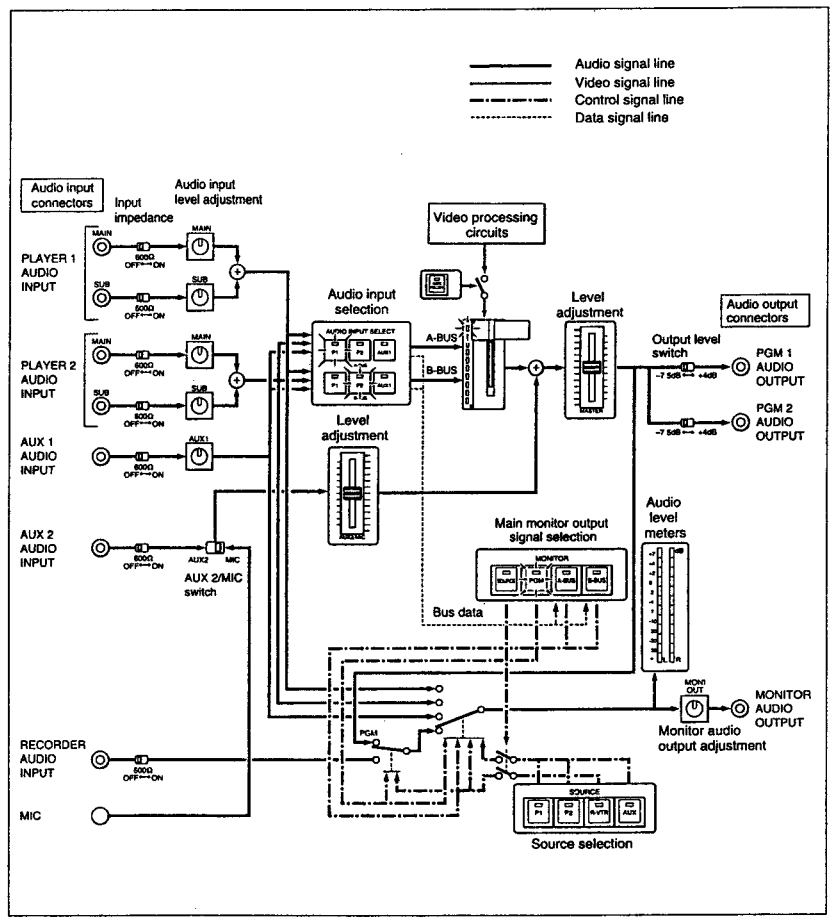


# Audio Signal Flow

The illustrations in this section show the flow of audio signals when program and source signal channels are selected for output.

### Audio signal channels

The audio signal channels of this unit are as follows.




Audio signal channels

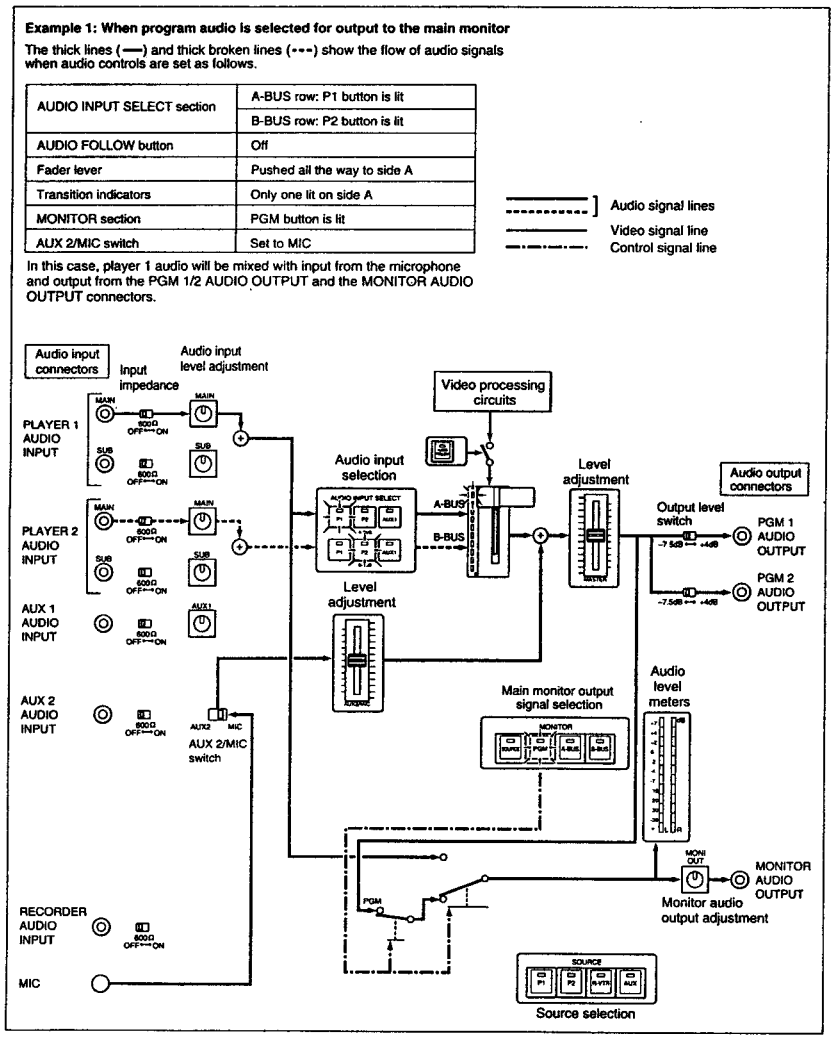
## Flow of program and source audio

**Example 1: When program audio is selected for output to the main monitor**

The thick lines (——) and thick broken lines (- - -) show the flow of audio signals when audio controls are set as follows.

| | |
|---|---|
| AUDIO INPUT SELECT section | A-BUS row: P1 button is lit |
| | B-BUS row: P2 button is lit |
| AUDIO FOLLOW button | Off |
| Fader lever | Pushed all the way to side A |
| Transition indicators | Only one lit on side A |
| MONITOR section | PGM button is lit |
| AUX 2/MIC switch | Set to MIC |

In this case, player 1 audio will be mixed with input from the microphone and output from the PGM 1/2 AUDIO OUTPUT and the MONITOR AUDIO OUTPUT connectors.



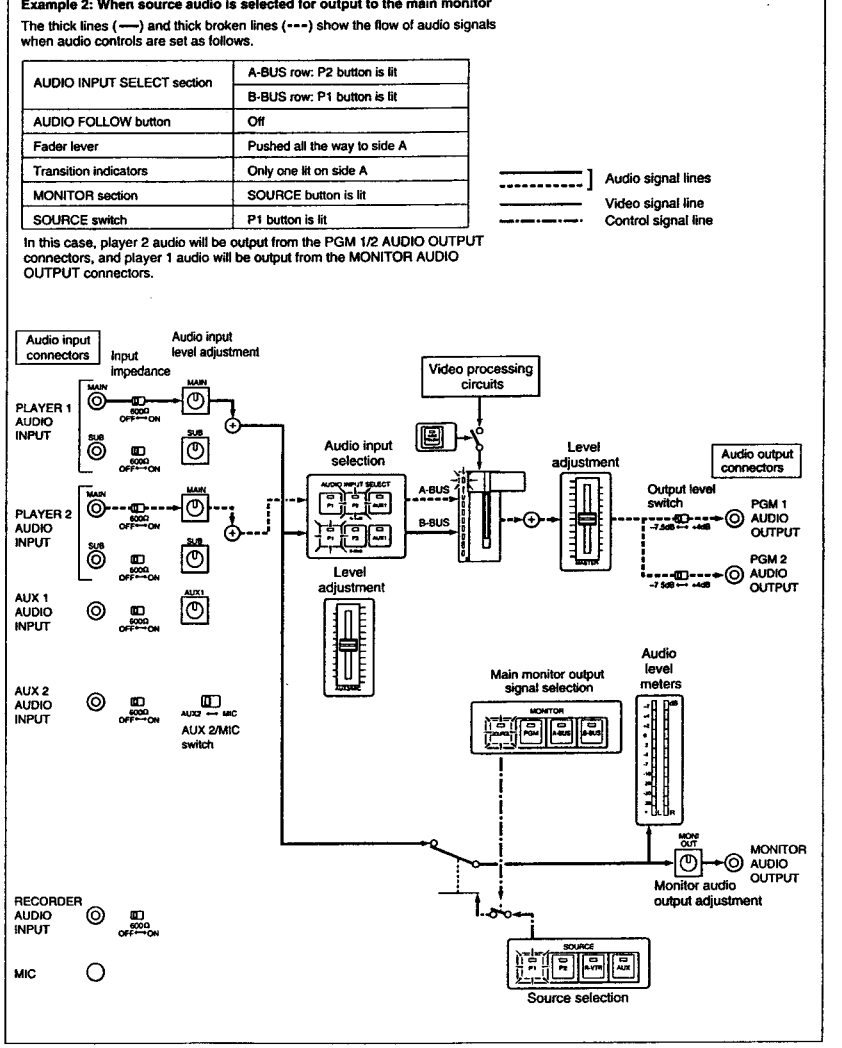

Audio signal flow when program audio is selected for output to the main monitor

**Example 2: When source audio is selected for output to the main monitor**

The thick lines (——) and thick broken lines (- - -) show the flow of audio signals when audio controls are set as follows.

| | |
|---|---|
| AUDIO INPUT SELECT section | A-BUS row: P2 button is lit |
| | B-BUS row: P1 button is lit |
| AUDIO FOLLOW button | Off |
| Fader lever | Pushed all the way to side A |
| Transition indicators | Only one lit on side A |
| MONITOR section | SOURCE button is lit |
| SOURCE switch | P1 button is lit |

In this case, player 2 audio will be output from the PGM 1/2 AUDIO OUTPUT connectors, and player 1 audio will be output from the MONITOR AUDIO OUTPUT connectors.

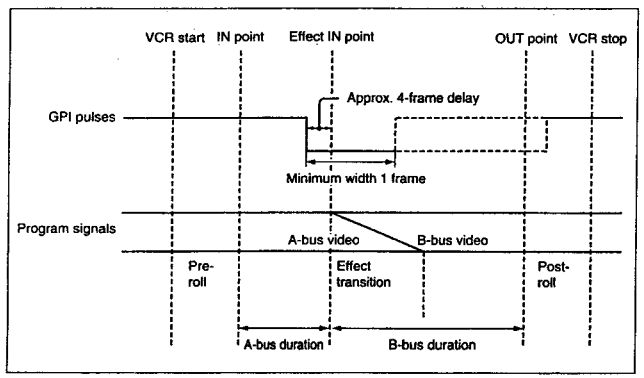



Audio signal flow when source audio is selected for output to the main monitor

# GPI Interface Effect Timing

This unit's GPI interface allows you to use external devices to control the timing of effect transitions between A-bus and B-bus source signals.
However, there is a delay of approximately 4 frames between the time when an external device issues a GPI pulse and the time when the effect transition begins. If you need precise control over effect timing, refer to following illustration and adjust the timing of GPI pulses on the external device side.

**GPI pulse specifications:** TTL LOW level, minimum pulse width 1 frame




GPI interface effect timing

# Wipe Patterns

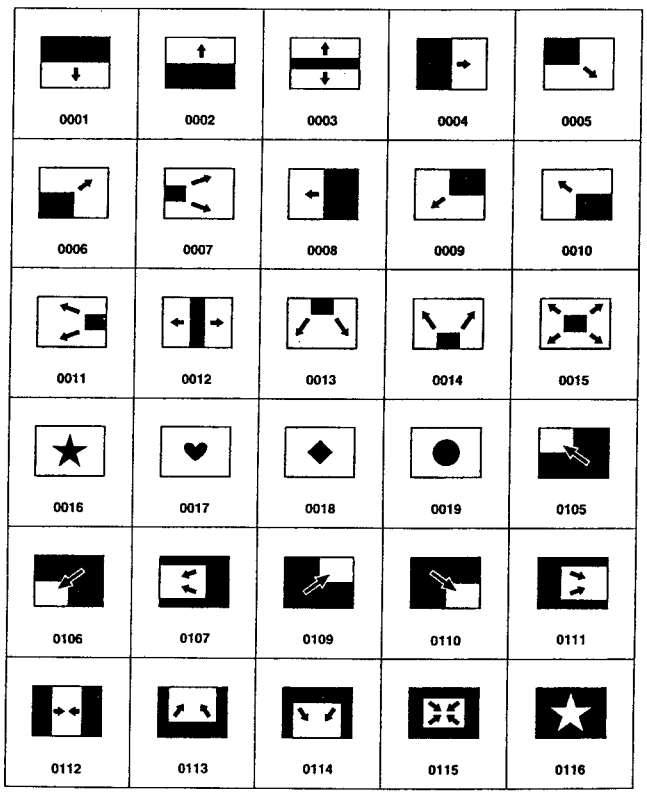
The illustrations in this section show the patterns which can be assigned to the USER 1 and USER 2 buttons in the WIPE PATTERN section, using setup menu item 201 WIPE PATTERN.

*For details, see Chapter 8.*

### Pattern transitions

Arrows show wipe directions. In a transition from bus A to bus B, the wipe replaces bus-A video (white portion) with bus-B video (black portion) in the directions shown by the arrows.

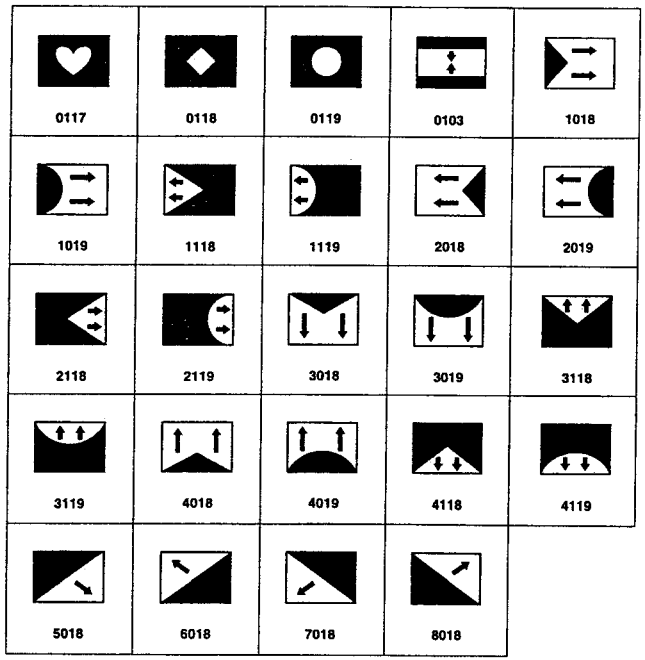
Basic patterns 1



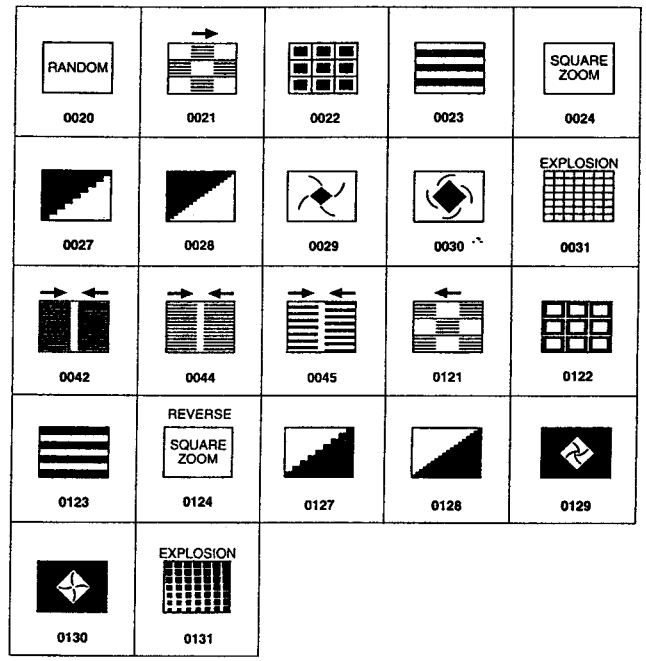

1-102

## Wipe Patterns

Basic patterns 1 (Continued)



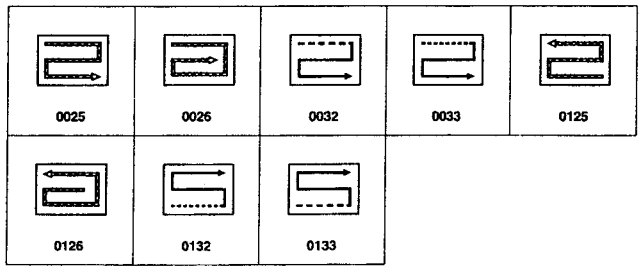

Basic patterns 2



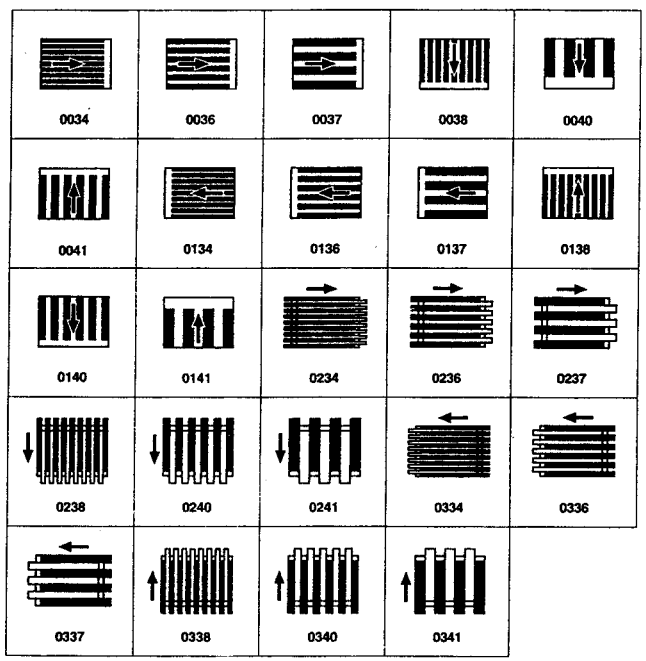

1-103

## Wipe Patterns

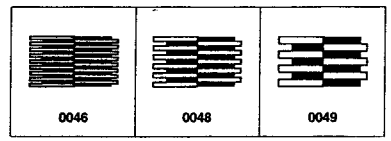
Matrix patterns



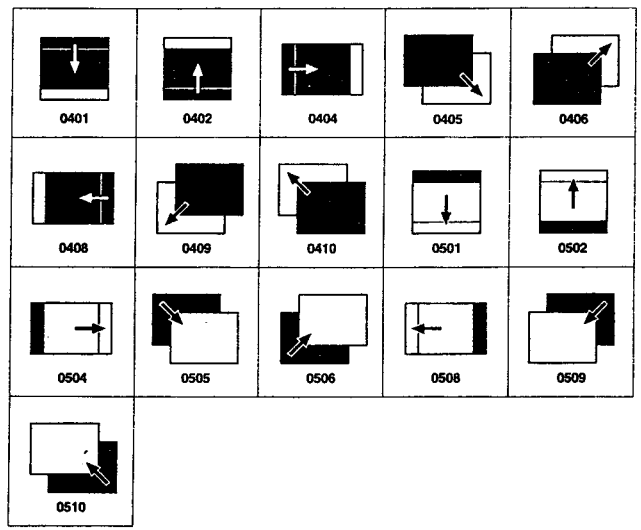

Split slide patterns



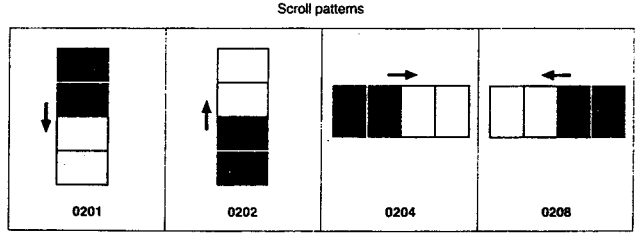

Interborder split patterns




Slide patterns




Scroll patterns

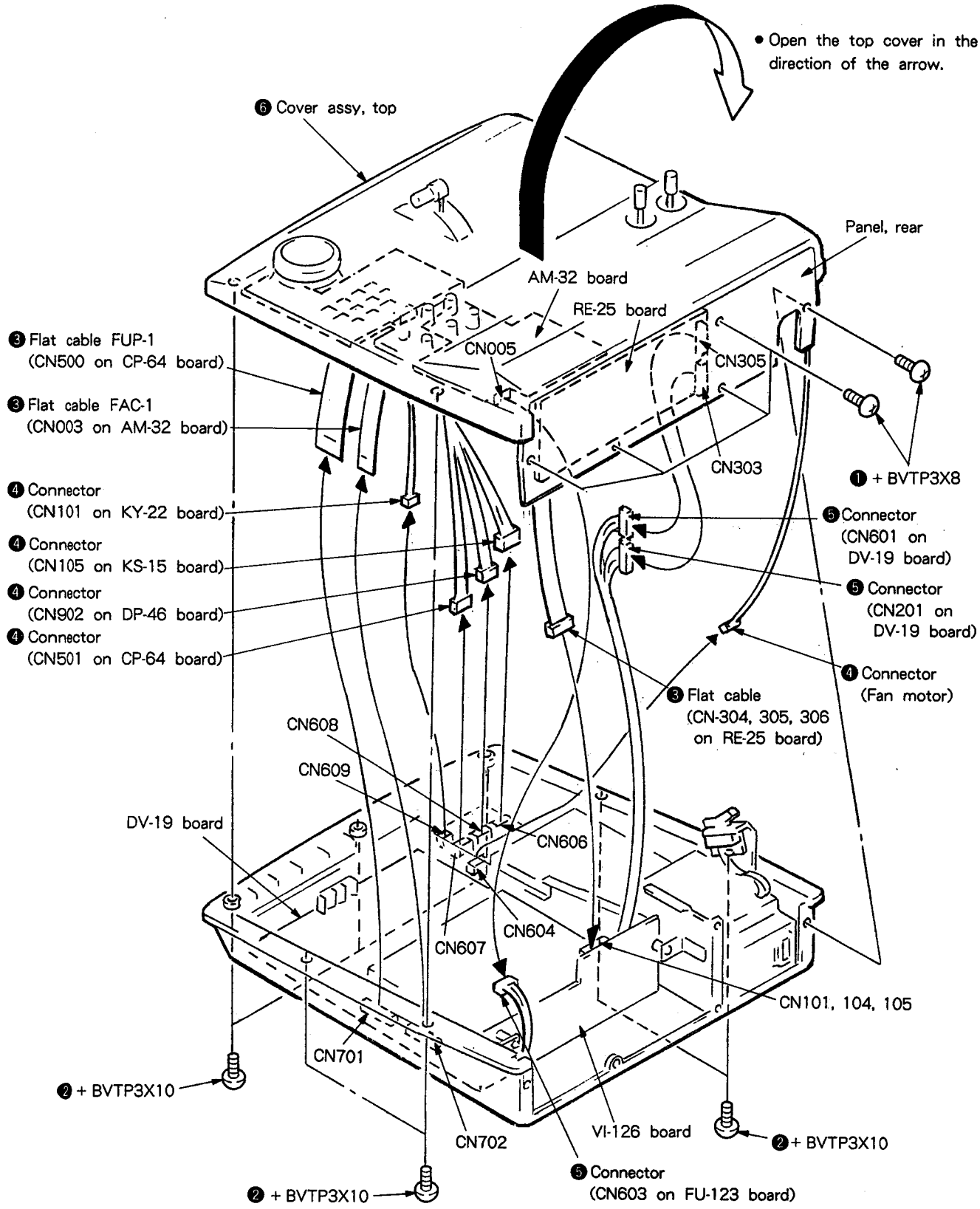



1-104 E

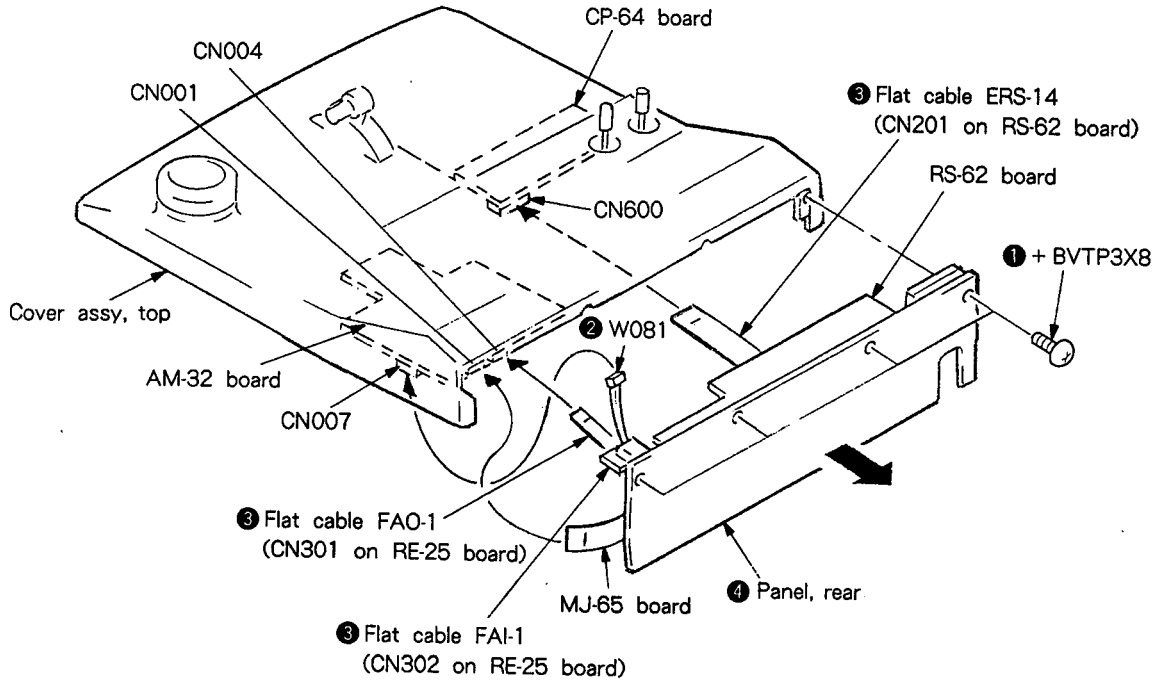
# SECTION 2
# DISASSEMBLY

NOTE : Follow the disassembly procedure in the numerical order given.

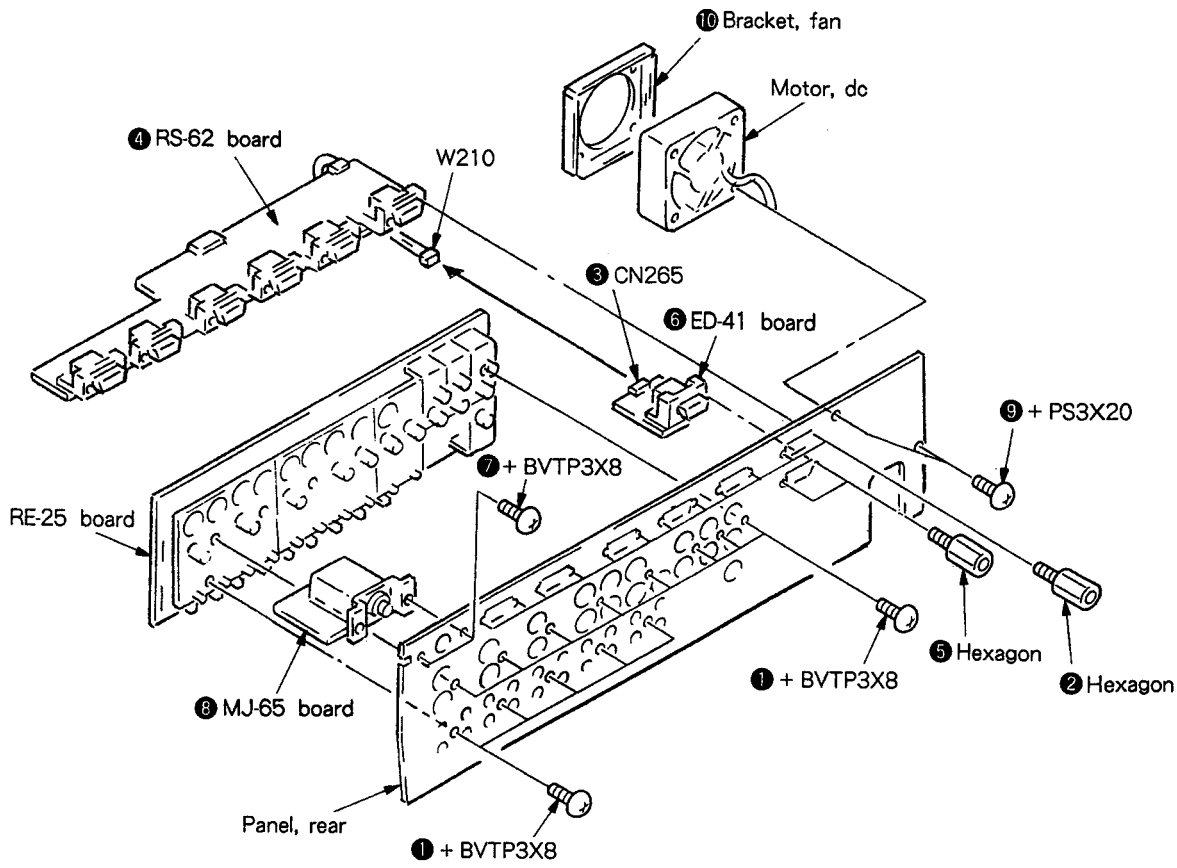
## 1. REMOVAL OF TOP COVER ASSY



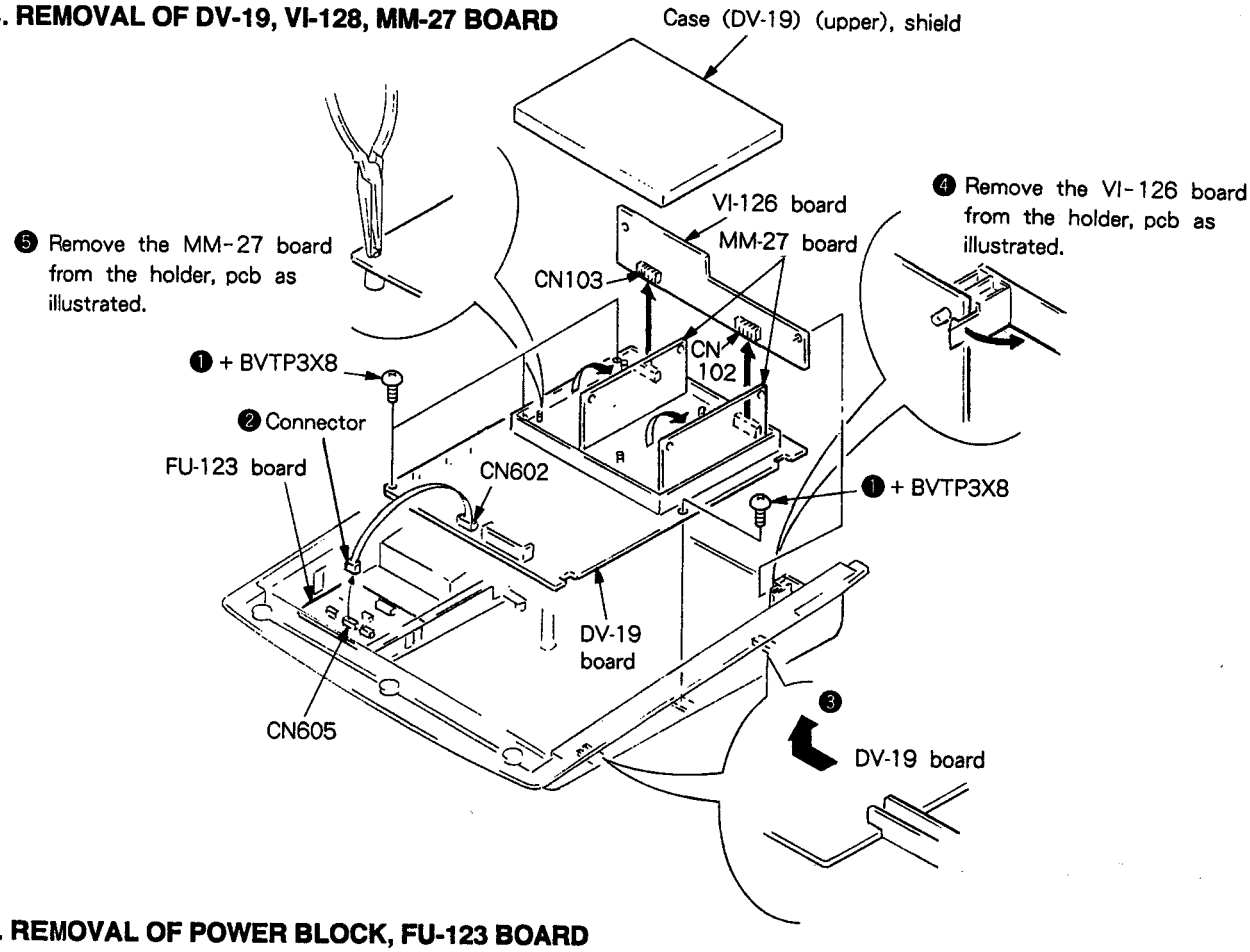
## 2. REMOVAL OF REAR PANEL



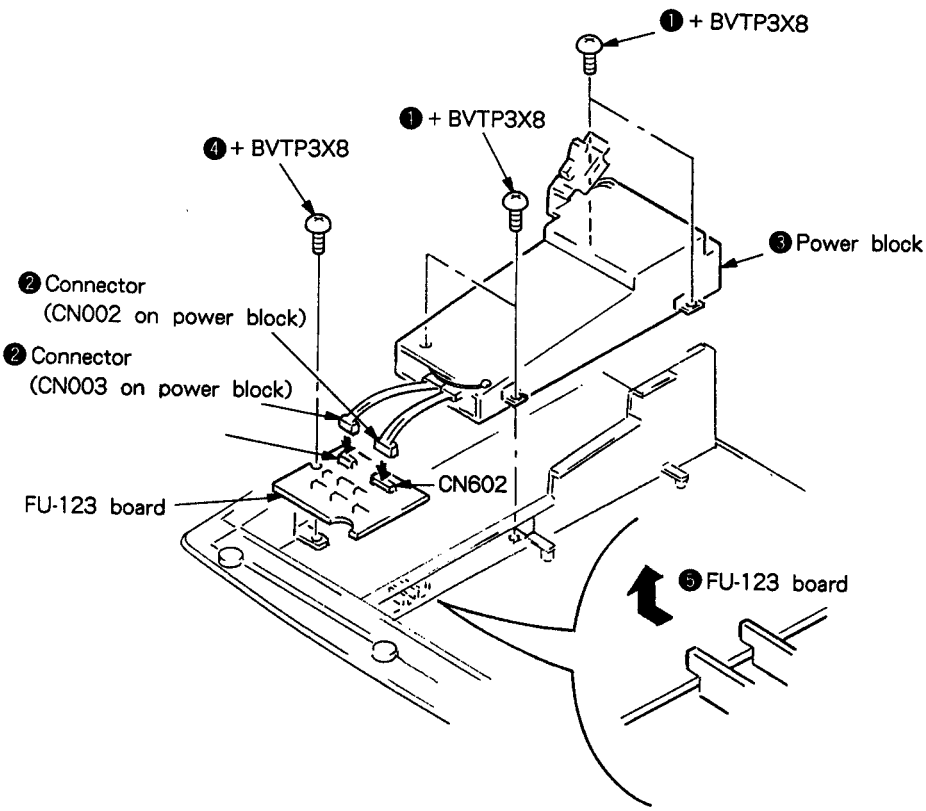

## 3. REMOVAL OF RE-25, RS-62, ED-41, MJ-65 BOARD AND DC MOTOR



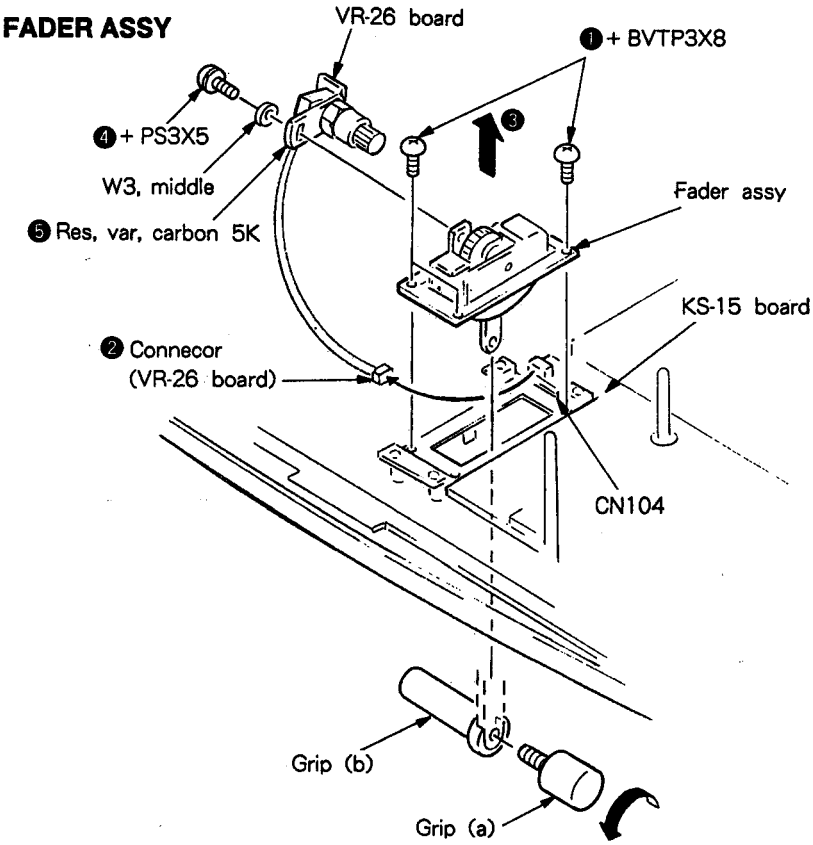
## 4. REMOVAL OF DV-19, VI-128, MM-27 BOARD



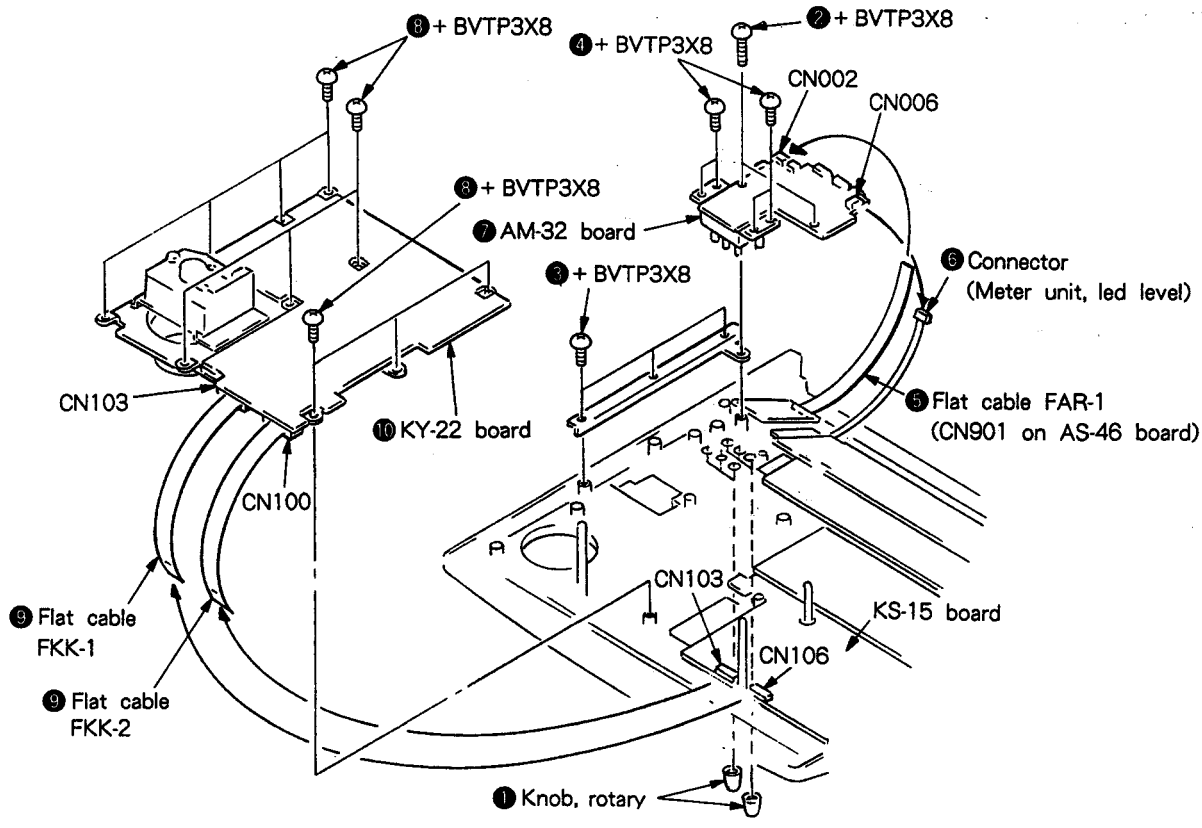

## 5. REMOVAL OF POWER BLOCK, FU-123 BOARD



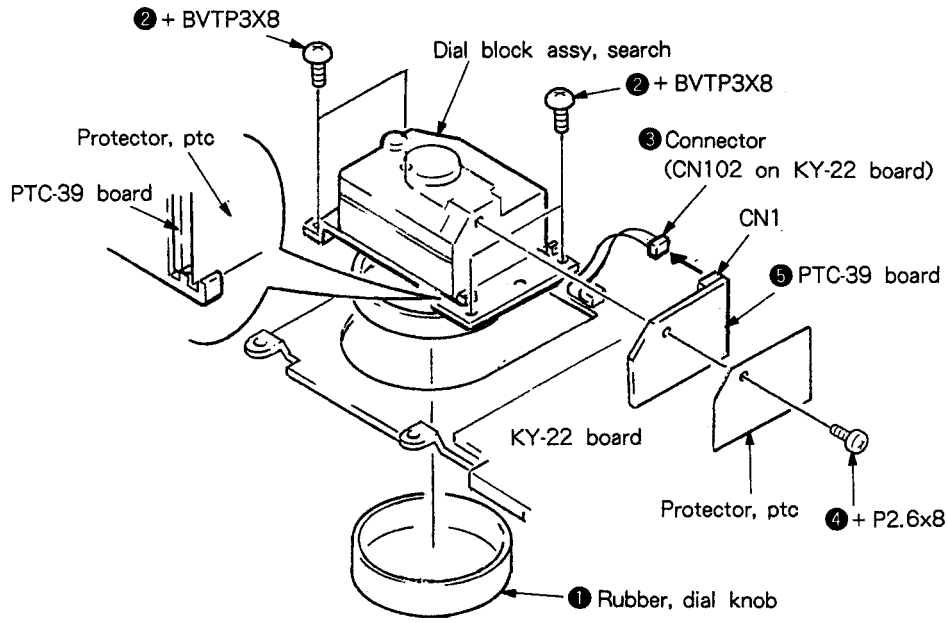
## 6. REMOVAL OF FADER ASSY



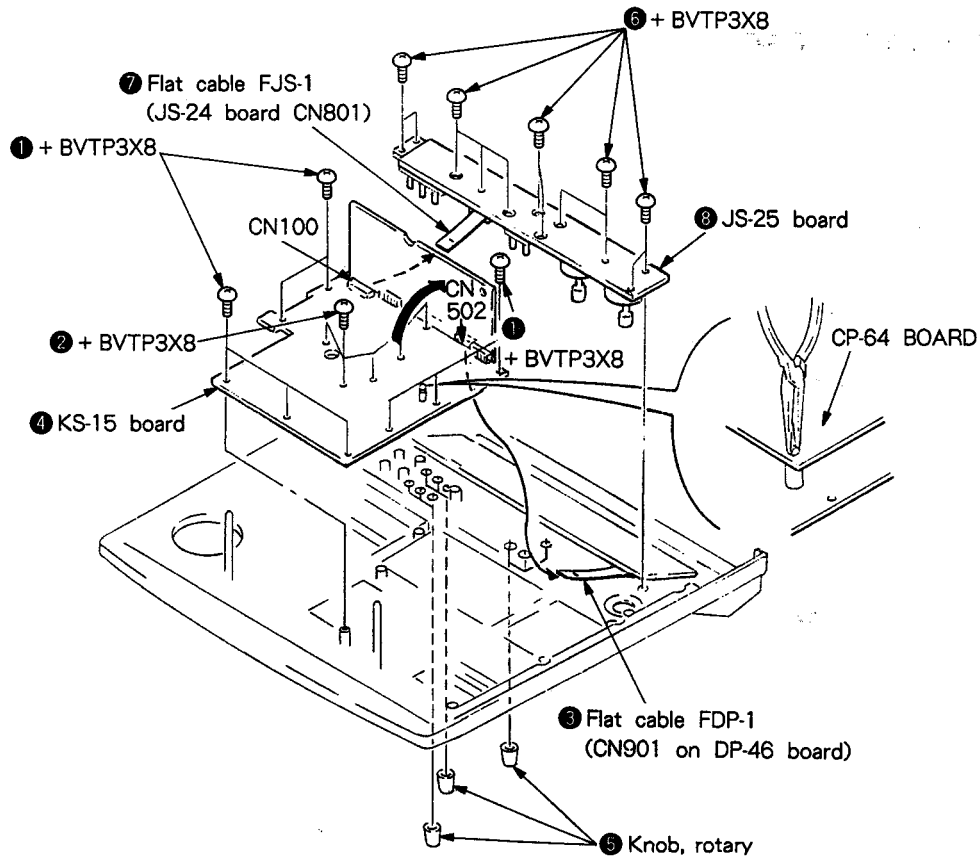

## 7. REMOVAL OF AM-32, KY-22 BOARD



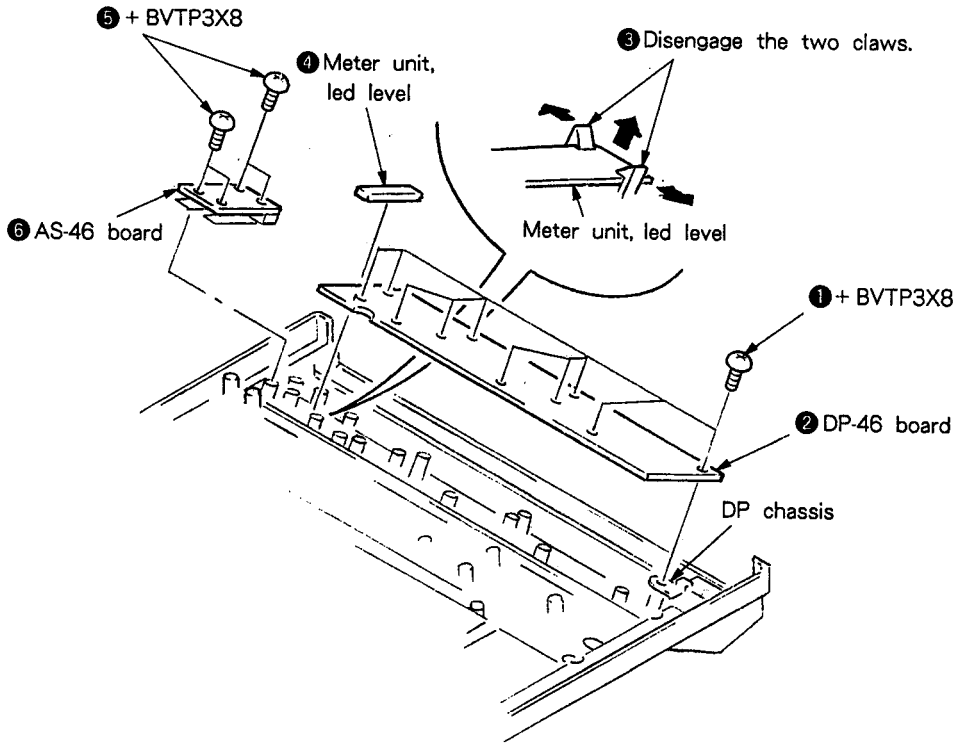
## 8. REMOVAL OF SEARCH DIAL BLOCK ASSY



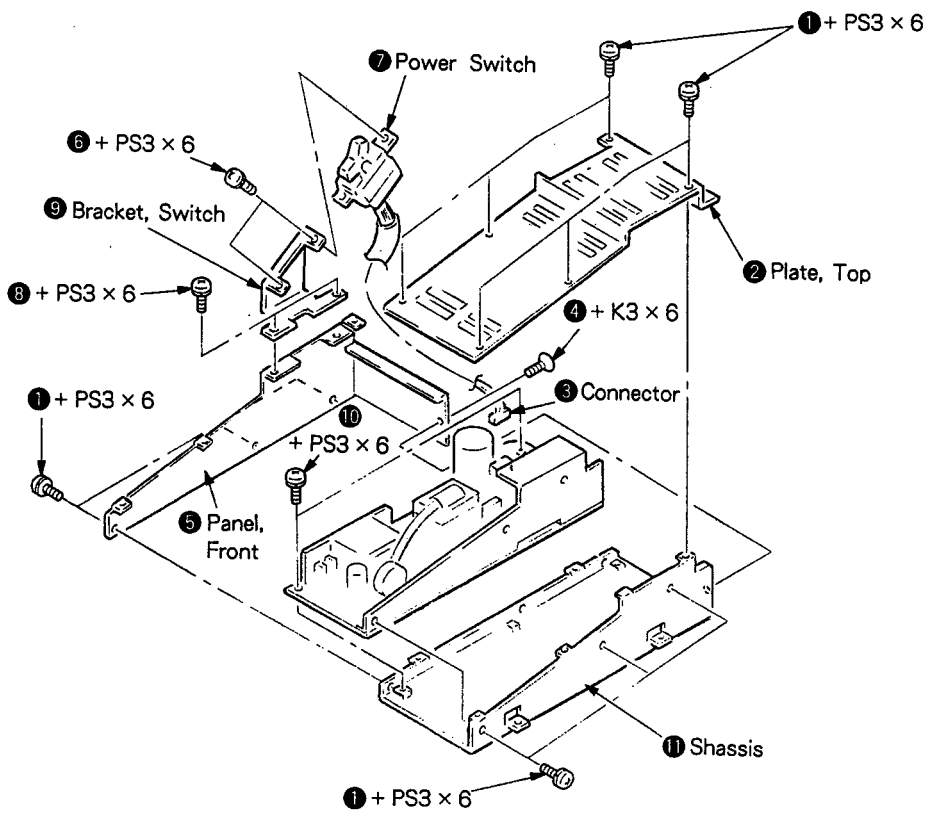

## 9. REMOVAL OF KS-15, CP-64, JS-25 BOARD



## 10. REMOVAL OF DP-46, AS-46 BOARD AND METER UNIT, LED LEVEL

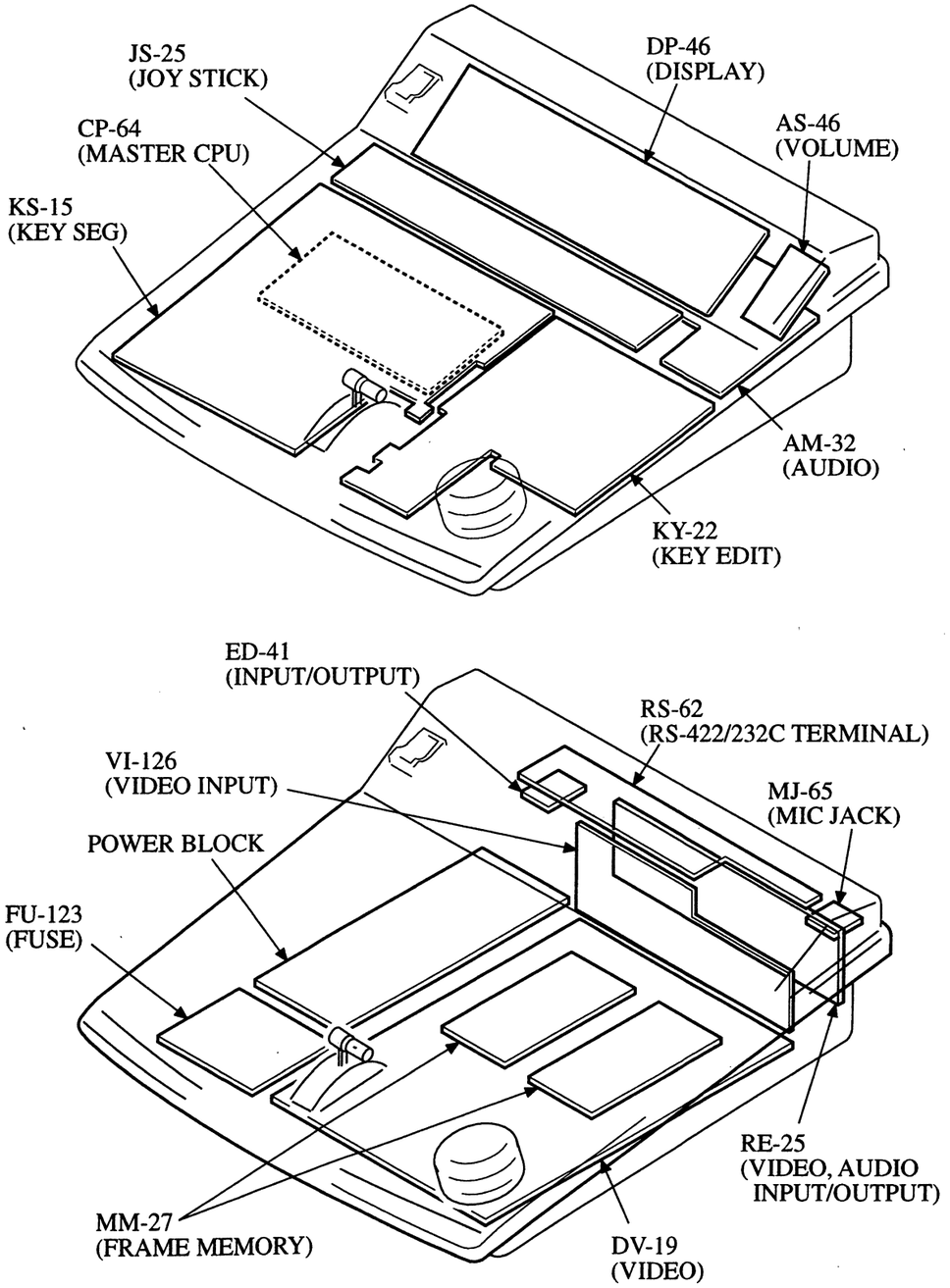



## 11. REMOVAL OF PARTS IN POWER SUPPLY BLOCK



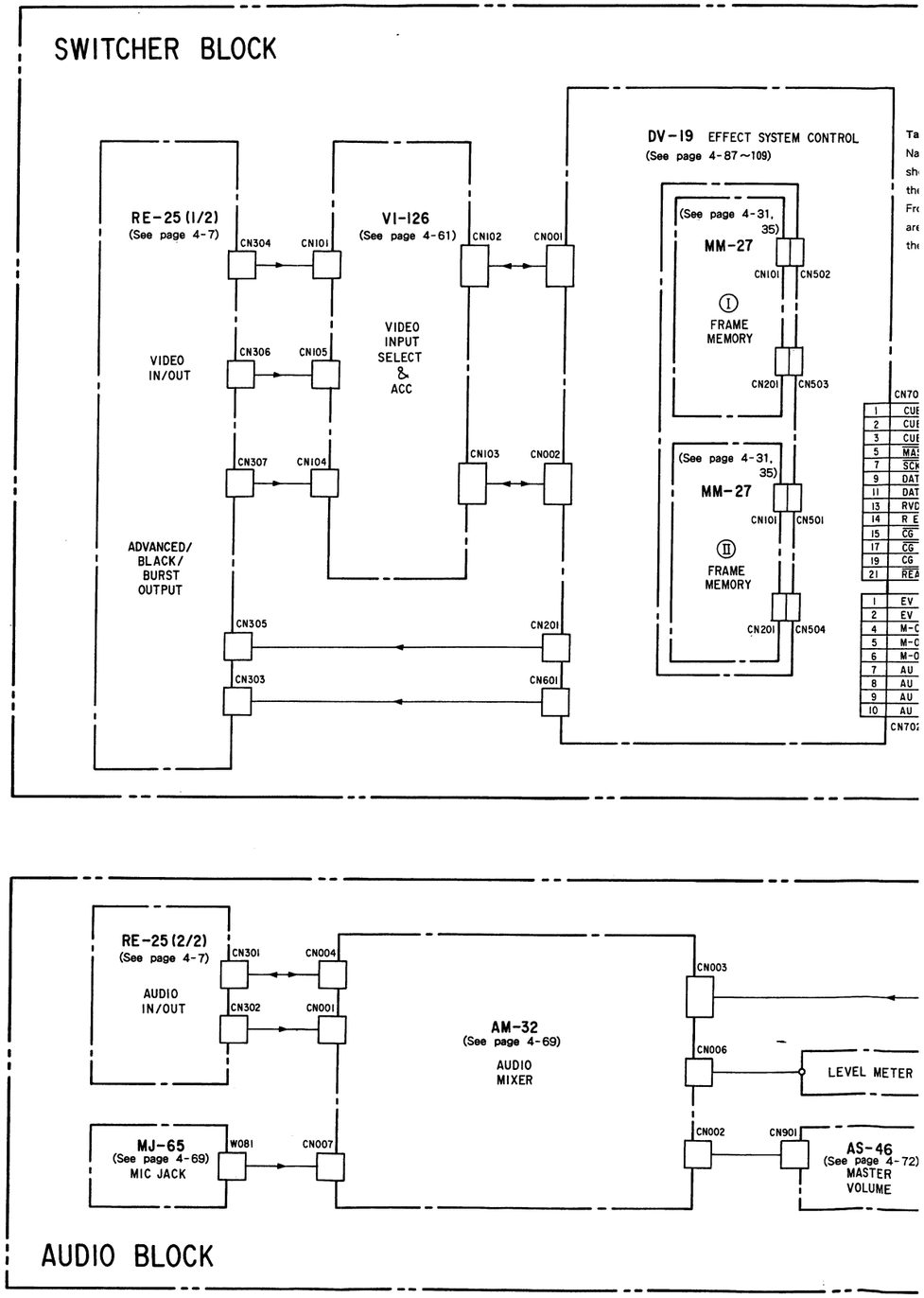
# SECTION 3
# DIAGRAMS

## 1. CIRCUIT BOARDS LOCATION

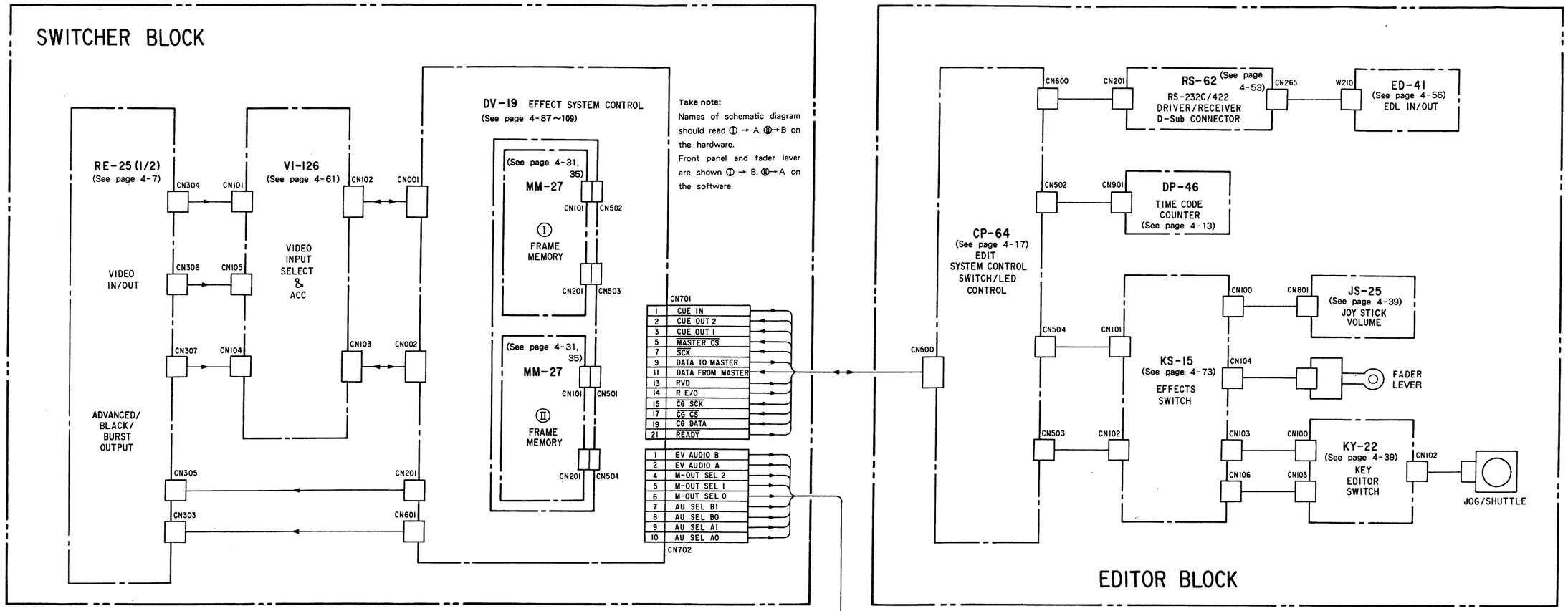


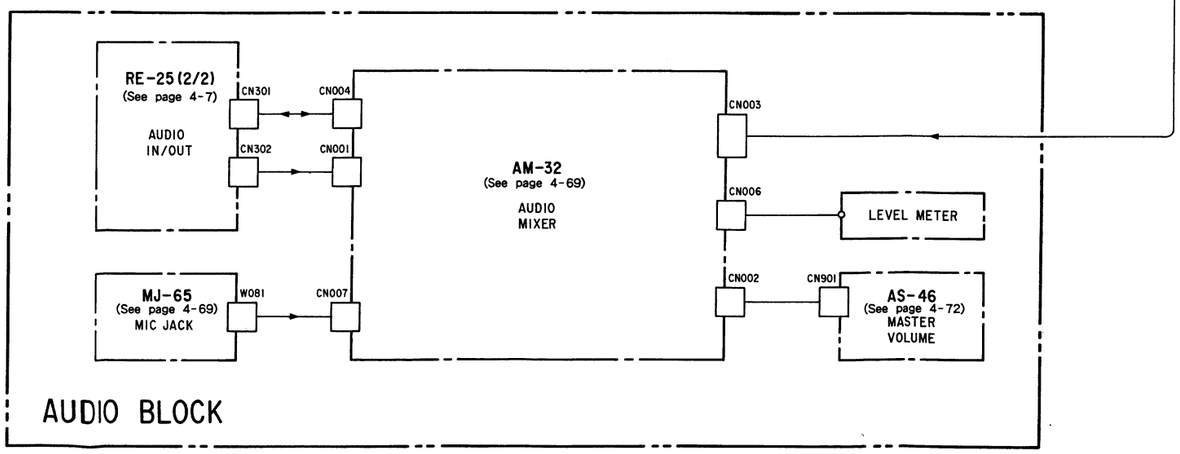


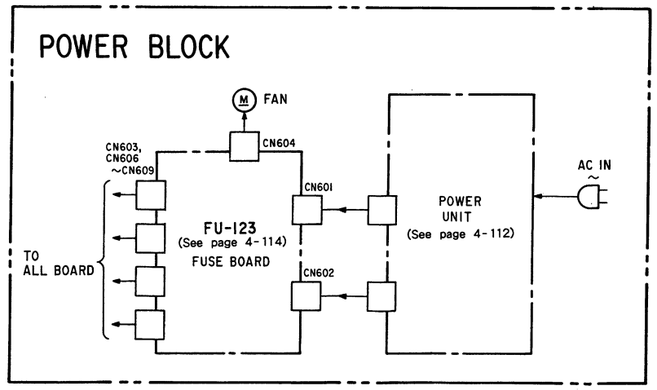

## 2. OVERALL BLOCK DIAGRAM

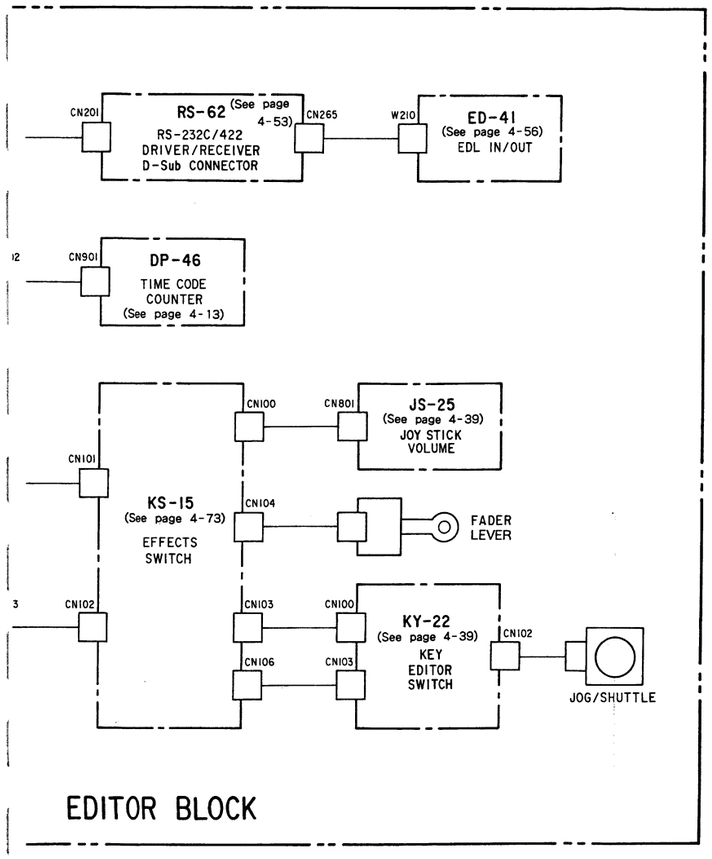


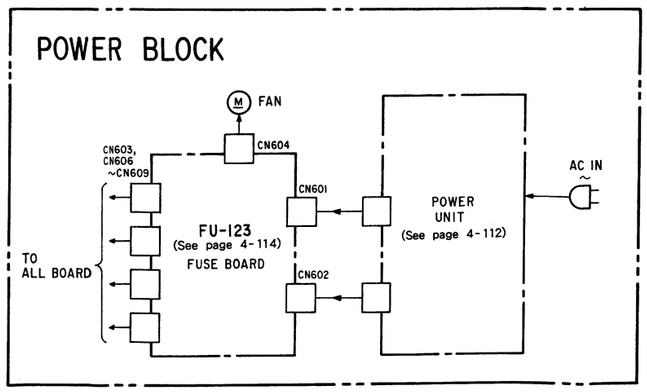
## ..DIAGRAM


SWITCHER BLOCK
RE-25 (1/2)
(See page 4-7)
CN304
CN101
VI-126
(See page 4-61)
CN102
CN001
VIDEO IN/OUT
CN306
CN105
VIDEO INPUT SELECT & ACC
CN307
CN104
CN103
CN002
ADVANCED/ BLACK/ BURST OUTPUT
CN305
CN201
CN303
CN601
DV-19 EFFECT SYSTEM CONTROL
(See page 4-87~109)
(See page 4-31, 35)
MM-27
CN101
CN502
Ⅰ
FRAME MEMORY
CN201
CN503
(See page 4-31, 35)
MM-27
CN101
CN501
Ⅱ
FRAME MEMORY
CN201
CN504
Take note:
Names of schematic diagram should read Ⅰ → A, Ⅱ→B on the hardware.
Front panel and fader lever are shown Ⅰ → B, Ⅱ→A on the software.
CN701
1 CUE IN
2 CUE OUT 2
3 CUE OUT 1
5 MASTER CS
7 SCK
9 DATA TO MASTER
11 DATA FROM MASTER
13 RVD
14 R E/O
15 CG SCK
17 CG CS
19 CG DATA
21 READY
1 EV AUDIO B
2 EV AUDIO A
4 M-OUT SEL 2
5 M-OUT SEL 1
6 M-OUT SEL 0
7 AU SEL BI
8 AU SEL BO
9 AU SEL AI
10 AU SEL AO
CN702
CN500
CP-64
(See page 4-17)
EDIT SYSTEM CONTROL SWITCH/LED CONTROL
CN600
CN201
RS-62 (See page 4-53)
RS-232C/422 DRIVER/RECEIVER D-Sub CONNECTOR
CN265
W210
ED-41
(See page 4-56)
EDL IN/OUT
CN502
CN901
DP-46
TIME CODE COUNTER
(See page 4-13)
CN504
CN101
KS-15
(See page 4-73)
EFFECTS SWITCH
CN100
CN801
JS-25
(See page 4-39)
JOY STICK VOLUME
CN104
FADER LEVER
CN503
CN102
CN103
CN100
KY-22
(See page 4-39)
KEY EDITOR SWITCH
CN102
CN106
CN103
JOG/SHUTTLE
EDITOR BLOCK


RE-25 (2/2)
(See page 4-7)
CN301
CN004
AUDIO IN/OUT
CN302
CN001
AM-32
(See page 4-69)
AUDIO MIXER
CN003
CN006
LEVEL METER
CN002
CN901
AS-46
(See page 4-72)
MASTER VOLUME
MJ-65
(See page 4-69)
MIC JACK
W081
CN007
AUDIO BLOCK


POWER BLOCK
M
FAN
CN604
CN603, CN606 ~CN609
CN601
AC IN
~
POWER UNIT
(See page 4-112)
TO ALL BOARD
FU-123
(See page 4-114)
FUSE BOARD
CN602




[DV-19 Board CN701, CN702 Description]

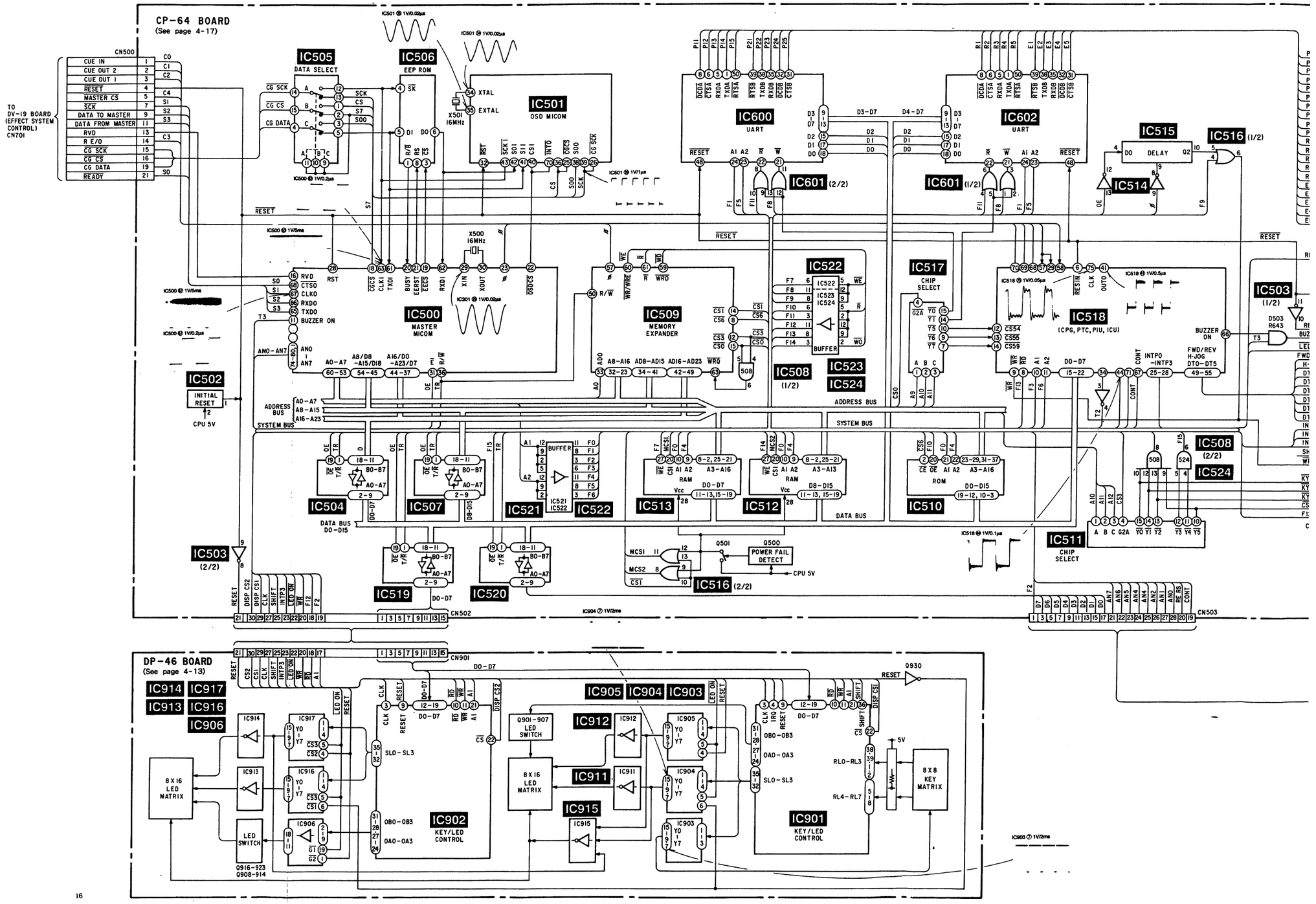
• CN701 Communication between CP-64 board and DV-19 board

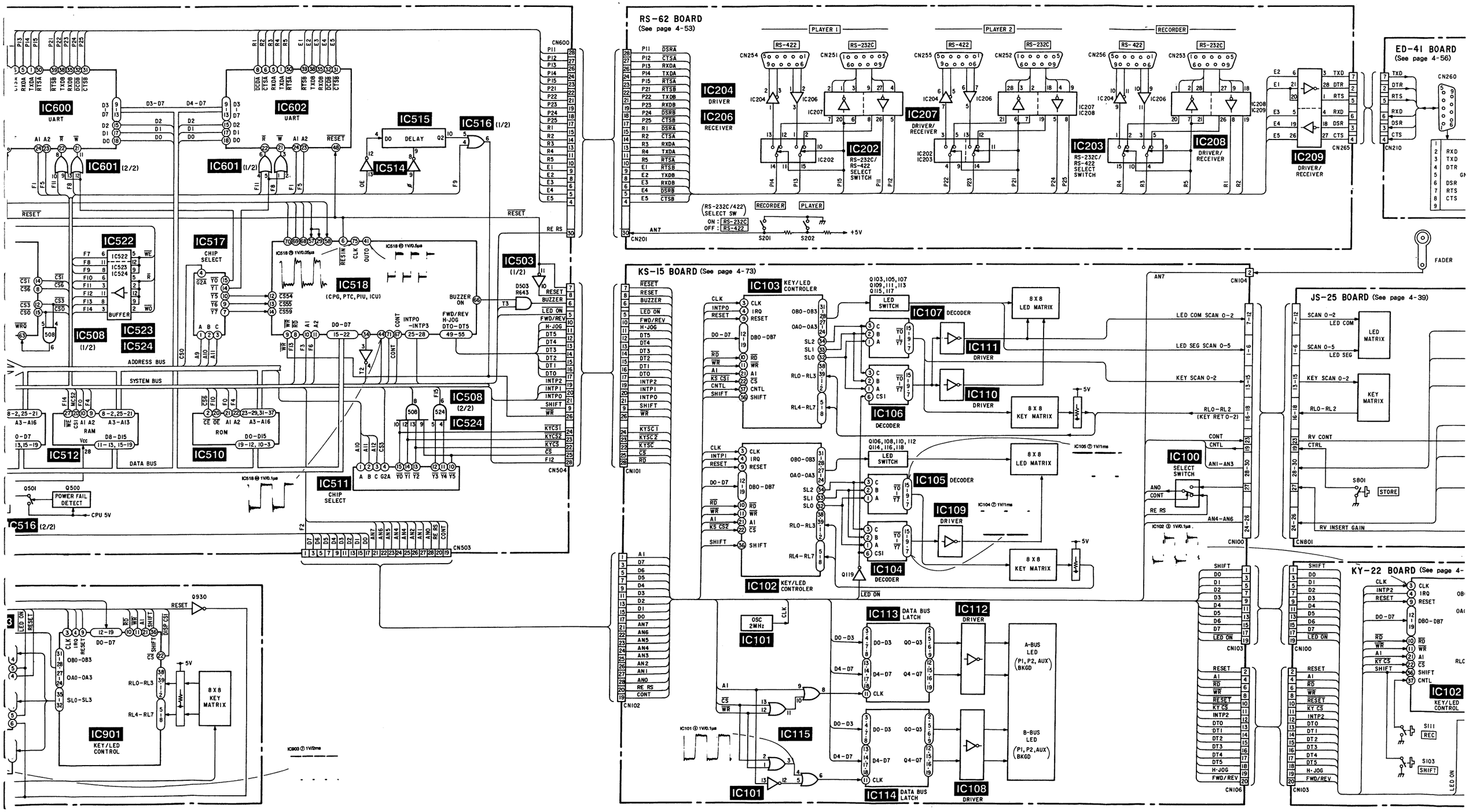
| PIN | Name | Direction | Description |
|---|---|---|---|
| 1 | CUE IN | DV-19→CP-64 | When an external pulse is input to the CUE IN connector, the same function as if the AUTO TRANS button is pressed is carried out. The pulse input is received by transistor circuit in DV-19 and sent to CP-64 board as it is. |
| 2 | CUE OUT2 | CP-64→DV-19 | The trigger pulse to external peripheral equipment. This pulse is output from CP-64 board, buffered by DV-19 and output to the CUE OUT terminal. |
| 3 | CUE OUT1 | CP-64→DV-19 | The trigger pulse to external peripheral equipment. This pulse is output from CP-64 board, buffered by DV-19 and output to the CUE OUT terminal. |
| 5 | $\overline{\text{MASTER CS}}$ | CP-64→DV-19 | The serial communication chip select signal from CP-64 master microprocessor (IC500) to the DV-19 main microprocessor (IC730). |
| 7 | $\overline{\text{SCK}}$ | CP-64→DV-19 | The serial communication clock from CP-64 master microprocessor (IC500) to the DV-19 main microprocessor (IC730). |
| 9 | DATA TO MASTER | DV-19→CP-64 | The serial communication data from DV-19 main microprocessor (IC730) to the CP-64 master microprocessor (IC500). |
| 11 | DATA FROM-MASTER | CP-64→DV-19 | The serial communication data from CP-64 master microprocessor (IC500) to the DV-19 main microprocessor (IC730). |
| 13 | RVD | DV-19→CP-64 | VD signal of the video signal read system. The CP-64 master microprocessor determines the communication timing using this pulse rate. |
| 14 | R $\overline{\text{O}}$/E | DV-19→CP-64 | Video signal read system L = Even, H = Odd pulse. The CP-64 master microprocessor comes to know whether the present timing is even or odd from this signal. |
| 15 | $\overline{\text{CG SCK}}$ | CP-64→DV-19 | The serial communication with the DV-19 character generator (IC206) IC.<br>{ $\overline{\text{SCK}}$ : clock<br>$\overline{\text{CS}}$ : chip select<br>DATA : data |
| 17 | $\overline{\text{CG CS}}$ | CP-64→DV-19 | |
| 19 | CG DATA | CP-64→DV-19 | { During the normal counter display mode : CP-64 OSD microprocessor (IC501) is output.<br>During the menu mode : CP-64 master microprocessor (IC500) is output. } |
| 21 | $\overline{\text{READY}}$ | DV-19→CP-64 | DV-19 microprocessor (IC730) notifies to the CP-64 master microprocessor (IC500) whether the serial communication can be accepted or not. |

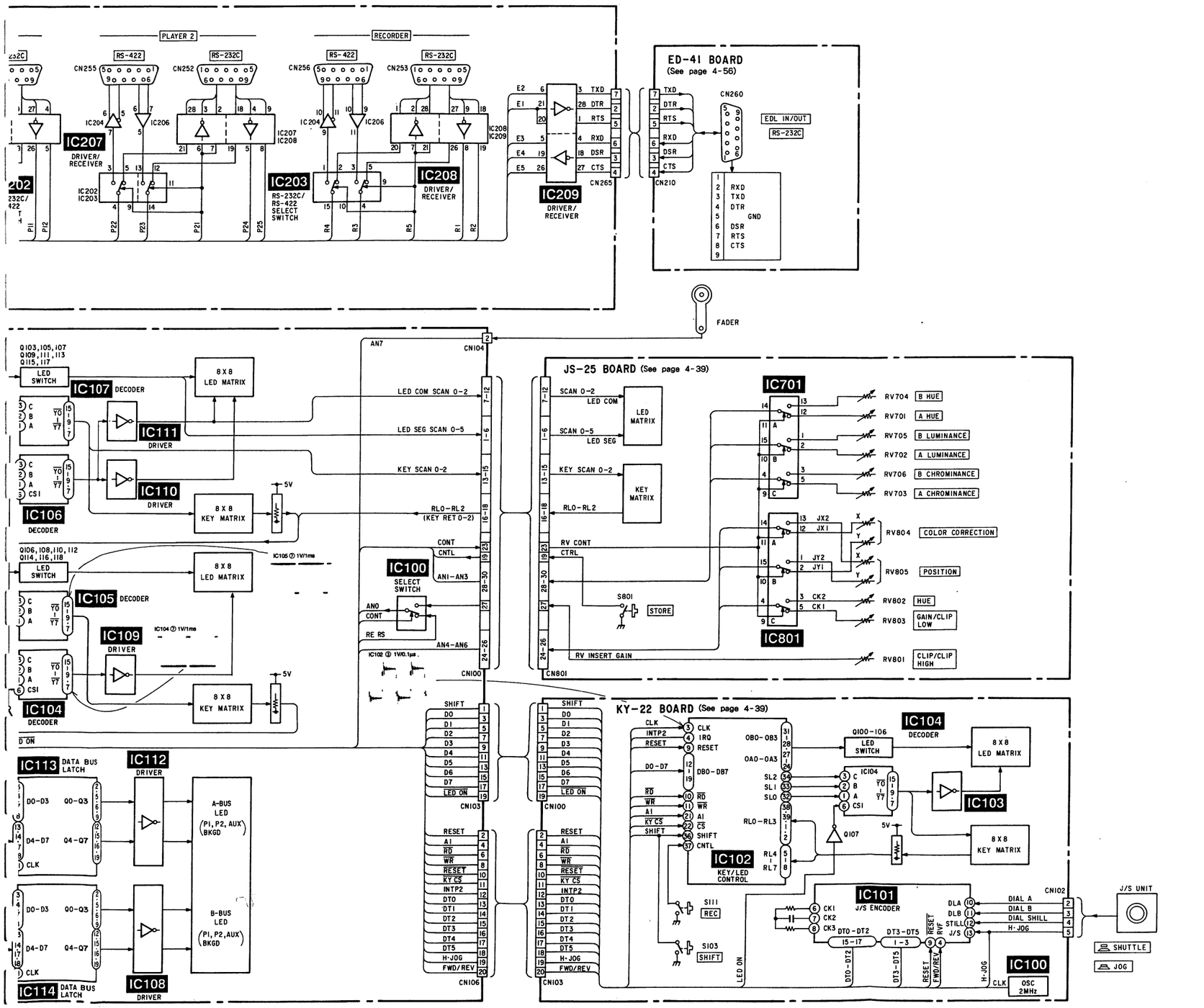
• CN702 Communication between AM-32 board and DV-19 board

| PIN | Name | Direction | Description |
|---|---|---|---|
| 1 | EV AUDIO B | DV-19→AM-32 | ATT level control of the B-Bus electronic volume control (AM-32, IC513). (DC voltage between 0 – 5V) |
| 2 | EV AUDIO A | DV-19→AM-32 | ATT level control of the A-Bus electronic volume control (AM-32, IC512). (DC voltage between 0 – 5V) |
| 4 | M-OUT SEL 2 | DV-19→AM-32 | Audio monitor output audio select logic → IC616, IC518 |
| 5 | M-OUT SEL 1 | DV-19→AM-32 | Logic is inverted in the AM-32 board, and level is converted from 0 – 5 to |
| 6 | M-OUT SEL 0 | DV-19→AM-32 | 8 – 0 [V]. |
| 7 | AU SEL B1 | DV-19→AM-32 | Audio B-Bus source audio select logic → IC511 |
| 8 | AU SEL B0 | DV-19→AM-32 | Logic is inverted in the AM-32 board, and level is converted from 0 – 5 to 8 – 0 [V]. |
| 9 | AU SEL A1 | DV-19→AM-32 | Audio A-Bus source audio select logic → IC510 |
| 10 | AU SEL A0 | DV-19→AM-32 | Logic is inverted in the AM-32 board, and level is converted from 0 – 5 to 8 – 0 [V]. |

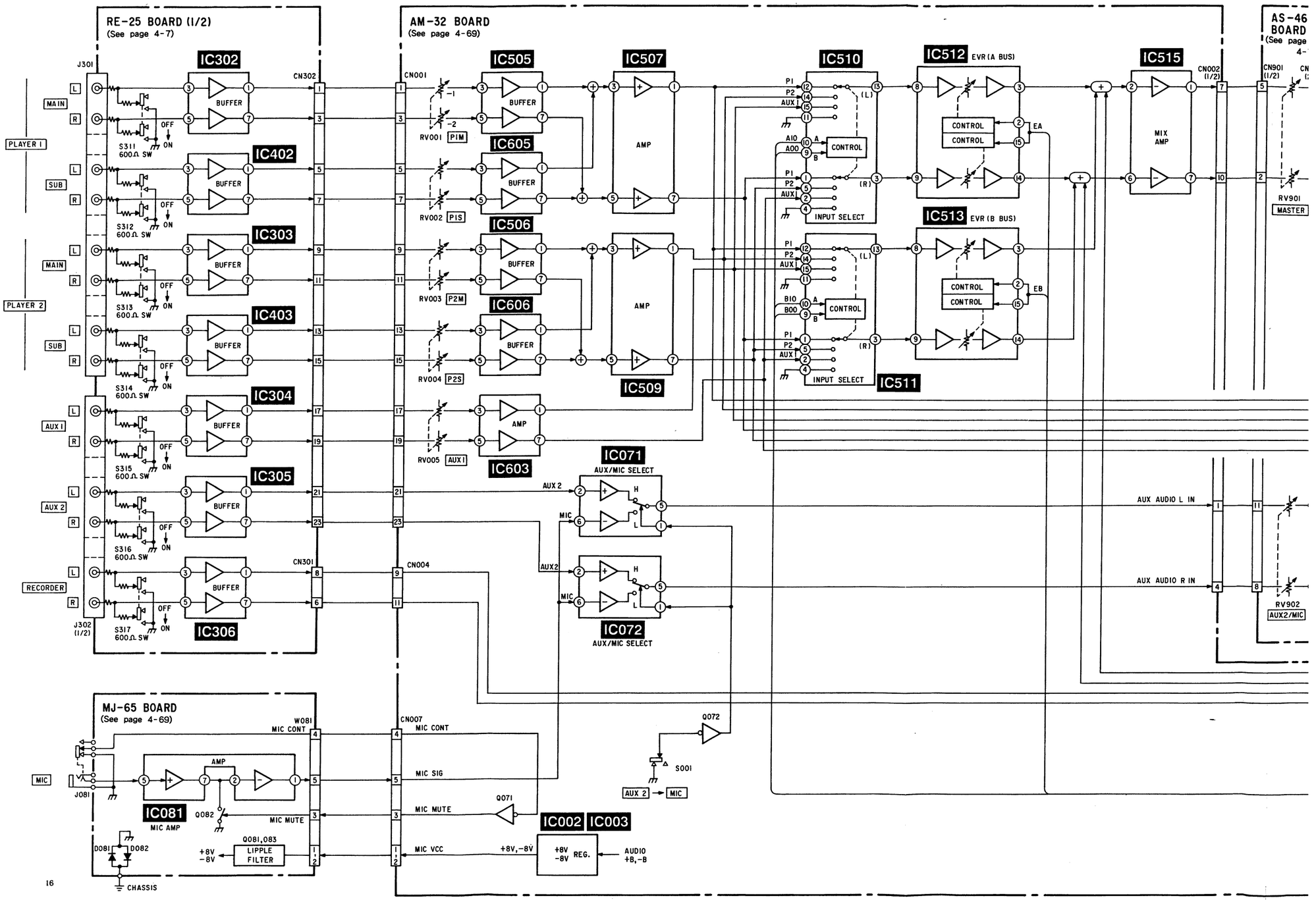
### 3. EDITOR BLOCK DIAGRAM




IC600 UART
IC601 (2/2)
IC601 (1/2)
IC602 UART
IC515
IC516 (1/2)
IC514
IC516 (2/2)
IC522
IC523
IC524
IC508 (1/2)
IC517 CHIP SELECT
IC518 (CPG, PTC, PIU, ICU)
IC503 (1/2)
IC508 (2/2)
IC524
IC510
IC511 CHIP SELECT
IC512
IC901 KEY/LED CONTROL
RESET
ADDRESS BUS
SYSTEM BUS
DATA BUS
BUFFER
RAM
ROM
POWER FAIL DETECT
CPU 5V
CN600
CN503
CN504
RS-62 BOARD (See page 4-53)
PLAYER 1
PLAYER 2
RECORDER
RS-422
RS-232C
IC204 DRIVER
IC206 RECEIVER
IC207 DRIVER/ RECEIVER
IC202 RS-232C/ RS-422 SELECT SWITCH
IC203 RS-232C/ RS-422 SELECT SWITCH
IC208 DRIVER/ RECEIVER
IC209 DRIVER/ RECEIVER
(RS-232C/422) SELECT SW
ON : RS-232C
OFF : RS-422
RECORDER
PLAYER
S201
S202
+5V
CN201
ED-41 BOARD (See page 4-56)
CN260
CN210
CN265
FADER
KS-15 BOARD (See page 4-73)
IC103 KEY/LED CONTROLER
IC107 DECODER
IC111 DRIVER
IC110 DRIVER
IC106 DECODER
IC105 DECODER
IC109 DRIVER
IC104 DECODER
IC102 KEY/LED CONTROLER
IC101
IC115
IC113 DATA BUS LATCH
IC114 DATA BUS LATCH
IC112 DRIVER
IC108 DRIVER
8 X 8 LED MATRIX
8 X 8 KEY MATRIX
LED SWITCH
A-BUS LED (P1, P2, AUX BKGD)
B-BUS LED (P1, P2, AUX BKGD)
LED COM SCAN 0-2
LED SEG SCAN 0-5
KEY SCAN 0-2
RLO-RL2 (KEY RET 0-2)
IC100 SELECT SWITCH
JS-25 BOARD (See page 4-39)
SCAN 0-2
LED COM
SCAN 0-5
LED SEG
KEY SCAN 0-2
KEY MATRIX
RLO-RL2
RV CONT
CTRL
S801
STORE
RV INSERT GAIN
KY-22 BOARD (See page 4-
CN801
CN100
CN101
CN102
CN103
CN104
CN106


PLAYER 2
RECORDER
RS-422
RS-232C
CN255
CN252
CN256
CN253
IC207
DRIVER/
RECEIVER
IC204
IC206
IC207
IC208
IC202
IC203
RS-232C/
RS-422
SELECT
SWITCH
IC208
DRIVER/
RECEIVER
IC209
DRIVER/
RECEIVER
CN265
CN210
ED-41 BOARD
(See page 4-56)
CN260
EDL IN/OUT
RS-232C
TXD
DTR
RTS
RXD
DSR
CTS
RXD
TXD
GND
DSR
RTS
CTS
FADER
Q103,105,107
Q109,111,113
Q115,117
LED
SWITCH
IC107
DECODER
8 X 8
LED MATRIX
IC111
DRIVER
IC110
DRIVER
IC106
DECODER
8 X 8
KEY MATRIX
5V
Q106,108,110,112
Q114,116,118
IC105
DECODER
IC109
DRIVER
IC104
DECODER
D ON
AN7
CN104
LED COM SCAN 0-2
LED SEG SCAN 0-5
KEY SCAN 0-2
RL0-RL2
(KEY RET 0-2)
CONT
CNTL
ANI-AN3
IC100
SELECT
SWITCH
AN0
CONT
RE RS
AN4-AN6
CN100
SHIFT
DO
D1
D2
D3
D4
D5
D6
D7
LED ON
CN103
RESET
AI
RD
WR
RESET
KY CS
INTP2
DTO
DT1
DT2
DT3
DT4
DT5
H·JOG
FWD/REV
CN106
JS-25 BOARD (See page 4-39)
SCAN 0-2
LED COM
SCAN 0-5
LED SEG
KEY SCAN 0-2
RL0-RL2
RV CONT
CTRL
RV INSERT GAIN
S801
STORE
CN801
IC701
RV704 B HUE
RV701 A HUE
RV705 B LUMINANCE
RV702 A LUMINANCE
RV706 B CHROMINANCE
RV703 A CHROMINANCE
RV804 COLOR CORRECTION
RV805 POSITION
RV802 HUE
RV803 GAIN/CLIP LOW
RV801 CLIP/CLIP HIGH
IC801
IC113
DATA BUS
LATCH
IC112
DRIVER
A-BUS
LED
(P1, P2, AUX
BKGD)
B-BUS
LED
(P1, P2, AUX
BKGD)
IC108
DRIVER
IC114
DATA BUS
LATCH
KY-22 BOARD (See page 4-39)
CLK
INTP2
RESET
DO-D7
RD
WR
AI
KY CS
SHIFT
IRQ
DB0-DB7
OB0-OB3
OA0-OA3
SL2
SL1
SL0
RL0-RL3
RL4
RL7
CNT1
IC102
KEY/LED
CONTROL
Q100-106
LED
SWITCH
IC104
DECODER
IC103
8 X 8
LED MATRIX
8 X 8
KEY MATRIX
Q107
5V
S111
REC
S103
SHIFT
IC101
J/S ENCODER
CK1
CK2
CK3
DT0-DT2
DT3-DT5
RESET
FWD/REV
J/S
CN102
DLA
DLB
STILL
DIAL A
DIAL B
DIAL SHILL
H·JOG
J/S UNIT
SHUTTLE
JOG
IC100
OSC
2MHz

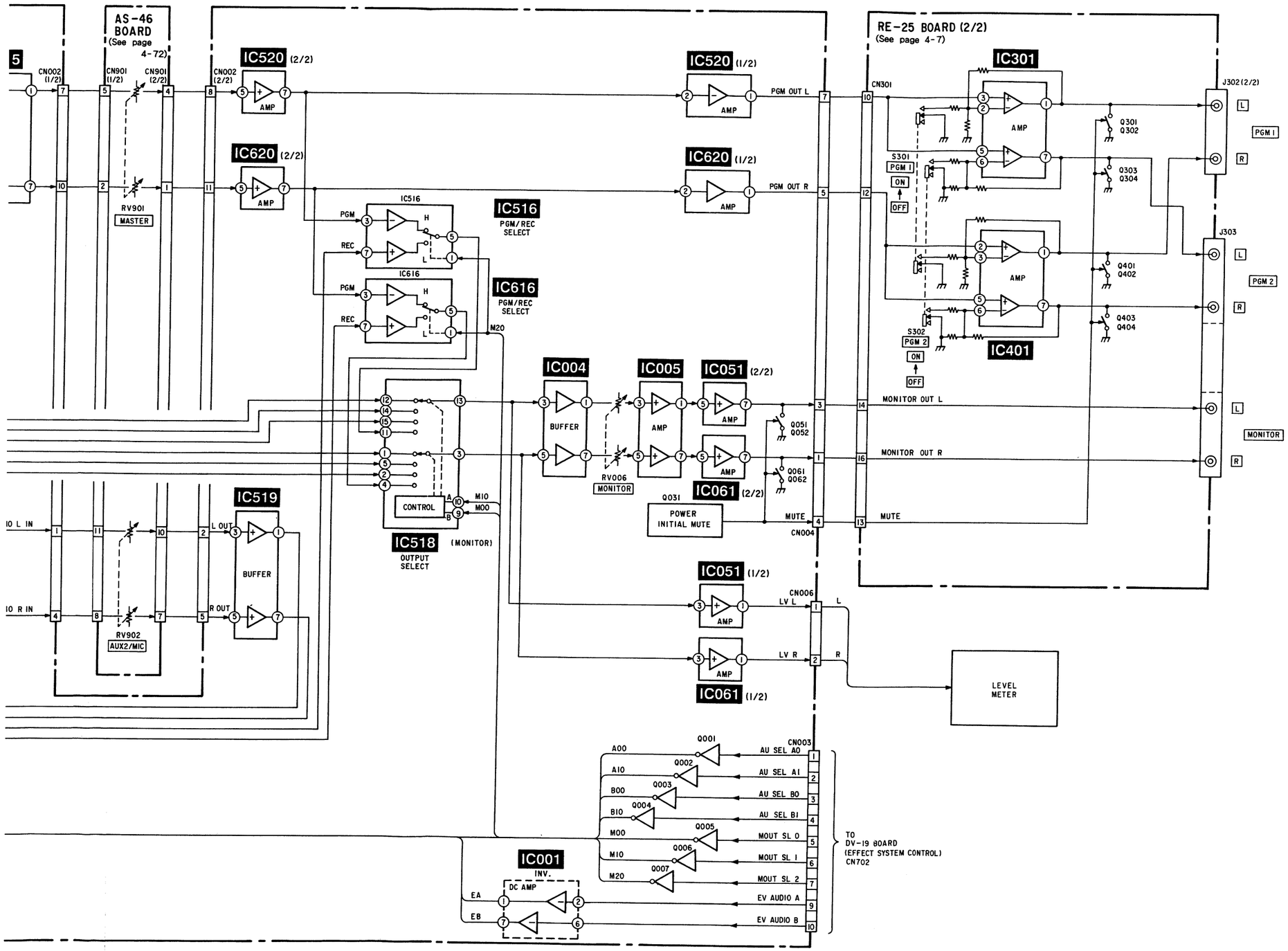
## 4. AUDIO BLOCK DIAGRAM



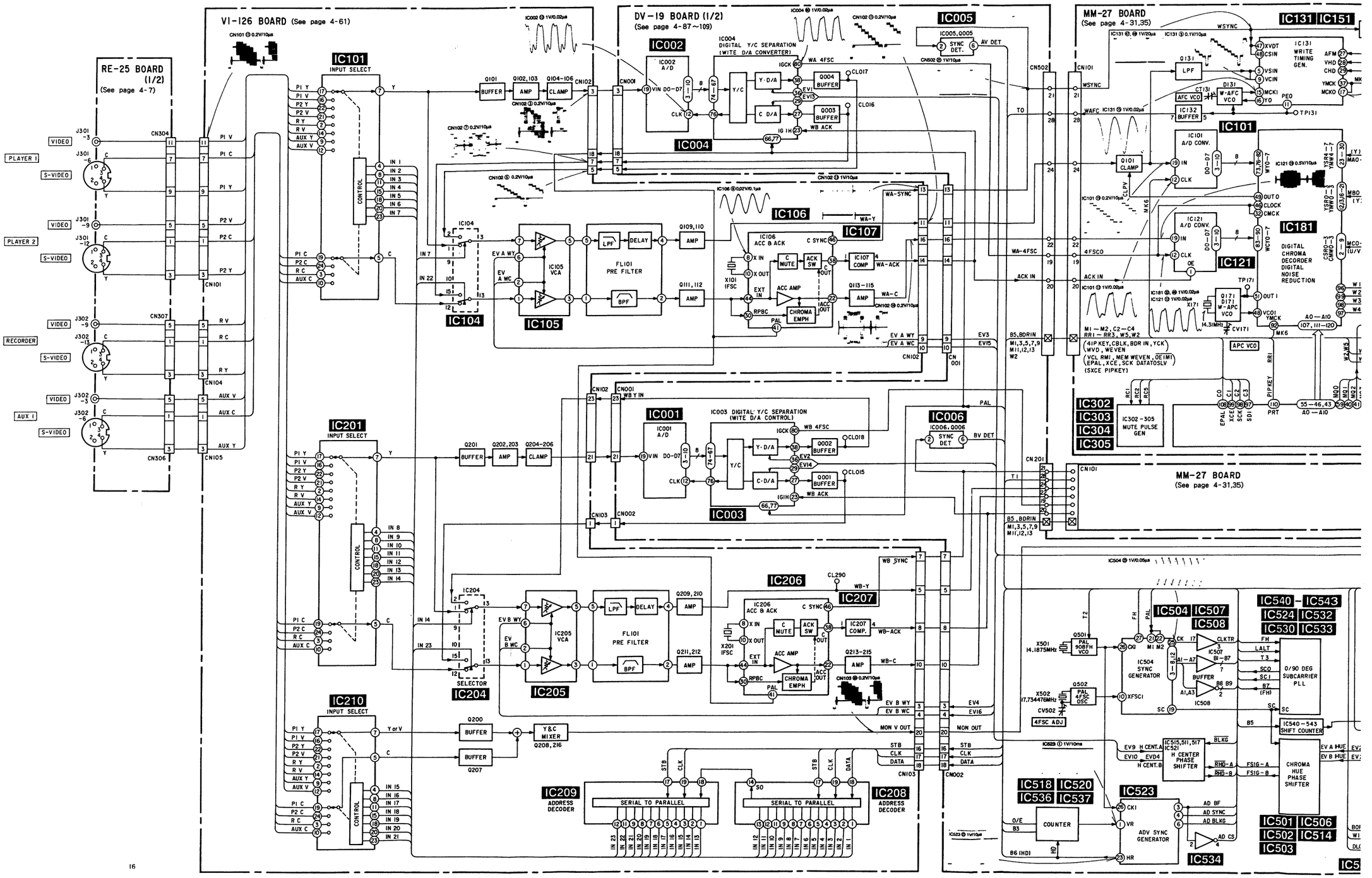


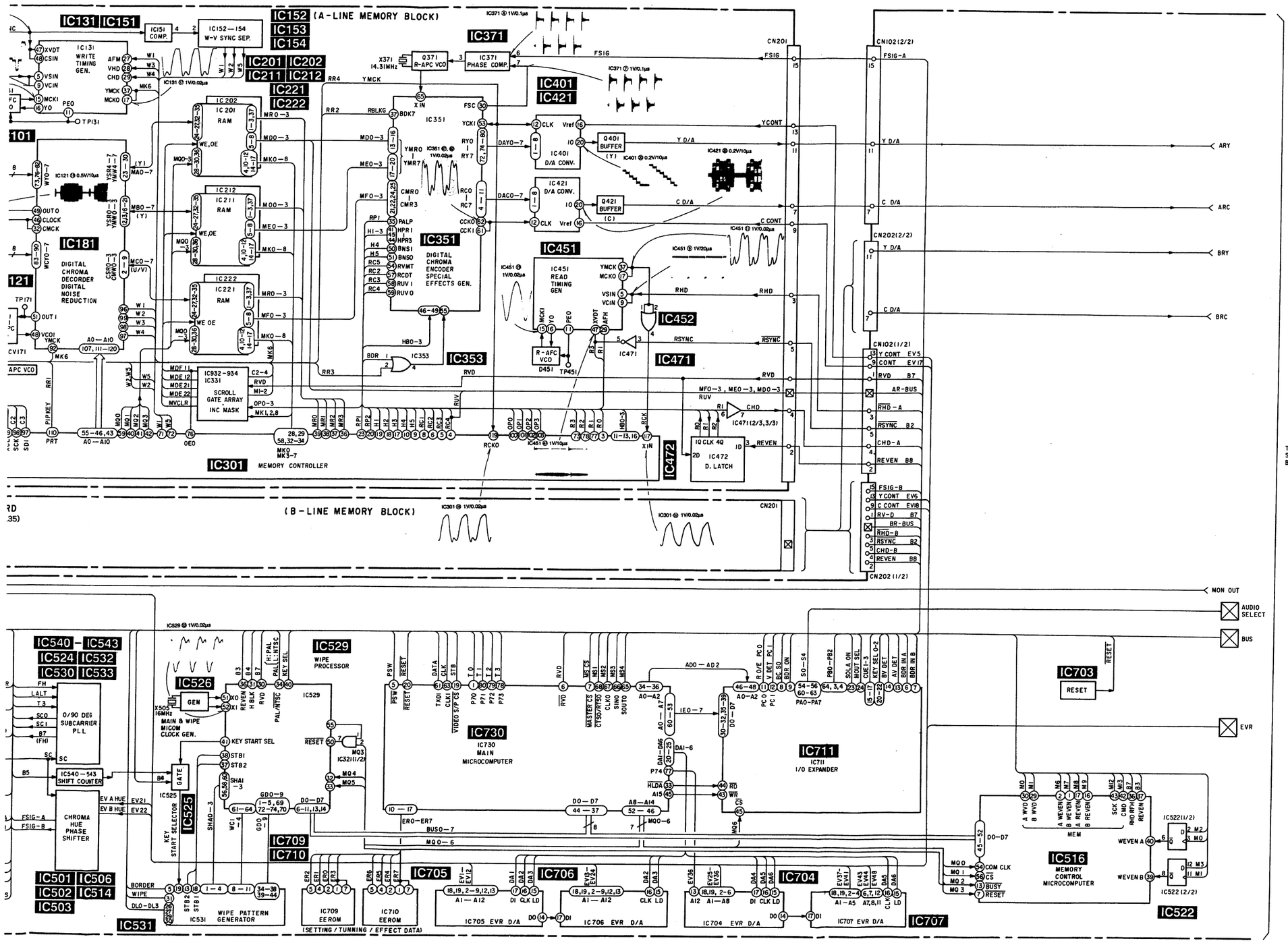

3-11

3-12

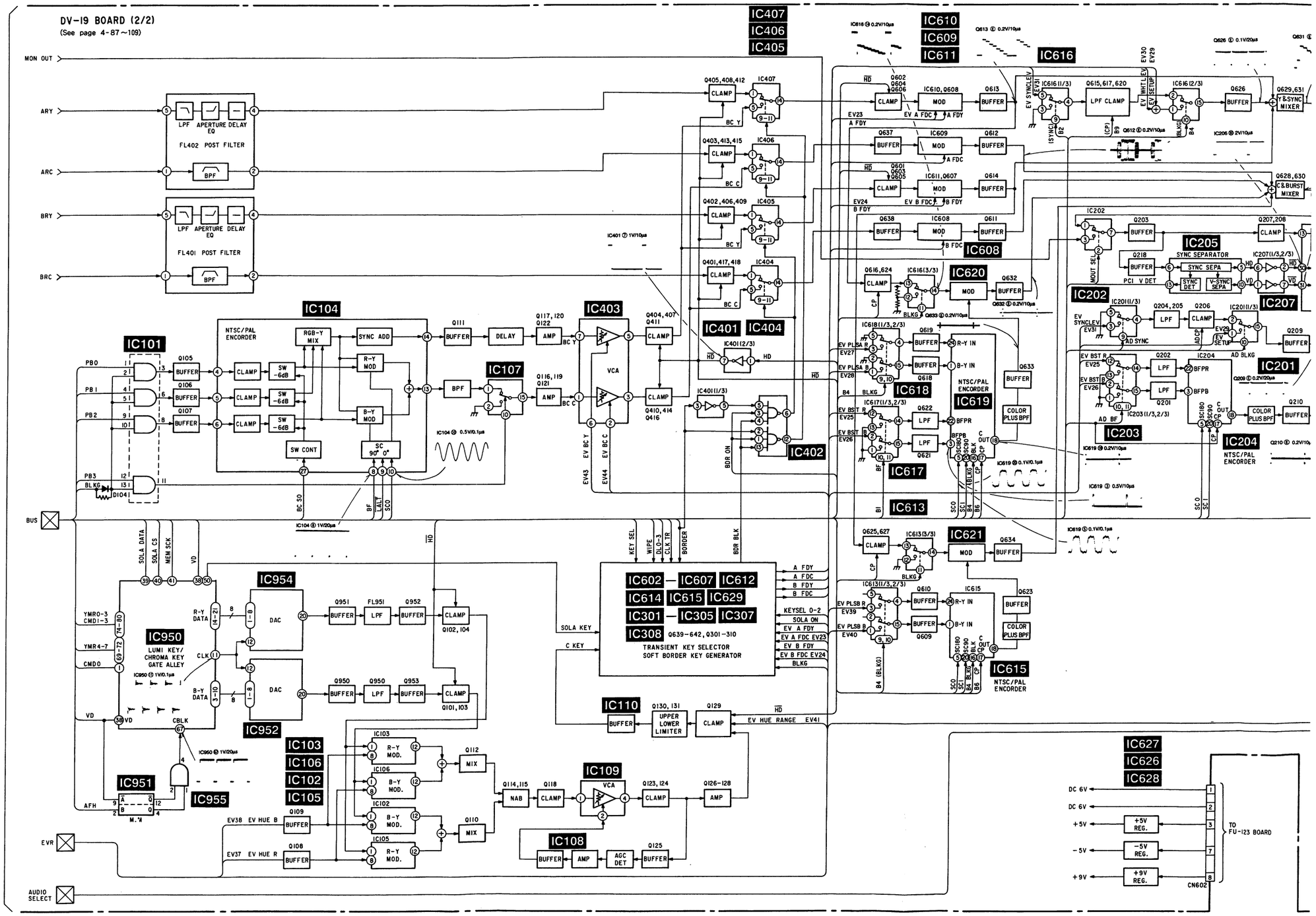

AS-46 BOARD
(See page 4-72)
CN002 (1/2)
CN901 (1/2)
CN901 (2/2)
CN002 (2/2)
IC520 (2/2)
IC520 (1/2)
PGM OUT L
IC620 (2/2)
IC620 (1/2)
PGM OUT R
RV901
MASTER
IC516
PGM/REC SELECT
IC616
PGM/REC SELECT
PGM
REC
H
L
M20
IC004
IC005
IC051 (2/2)
BUFFER
AMP
Q051
Q052
Q061
Q062
RV006
MONITOR
IC061 (2/2)
Q031
POWER INITIAL MUTE
MUTE
CN004
CONTROL
M10
M00
IC518
OUTPUT SELECT
(MONITOR)
IC519
IO L IN
IO R IN
L OUT
R OUT
RV902
AUX2/MIC
IC051 (1/2)
CN006
LV L
LV R
L
R
LEVEL METER
IC001
INV.
DC AMP
EA
EB
Q001
Q002
Q003
Q004
Q005
Q006
Q007
A00
A10
B00
B10
M00
M10
M20
CN003
AU SEL A0
AU SEL A1
AU SEL B0
AU SEL B1
MOUT SL 0
MOUT SL 1
MOUT SL 2
EV AUDIO A
EV AUDIO B
TO DV-19 BOARD (EFFECT SYSTEM CONTROL) CN702
RE-25 BOARD (2/2)
(See page 4-7)
IC301
CN301
S301
PGM 1
ON
OFF
Q301
Q302
Q303
Q304
J302 (2/2)
L
R
PGM 1
J303
Q401
Q402
Q403
Q404
S302
PGM 2
IC401
PGM 2
MONITOR OUT L
MONITOR OUT R
MUTE
MONITOR

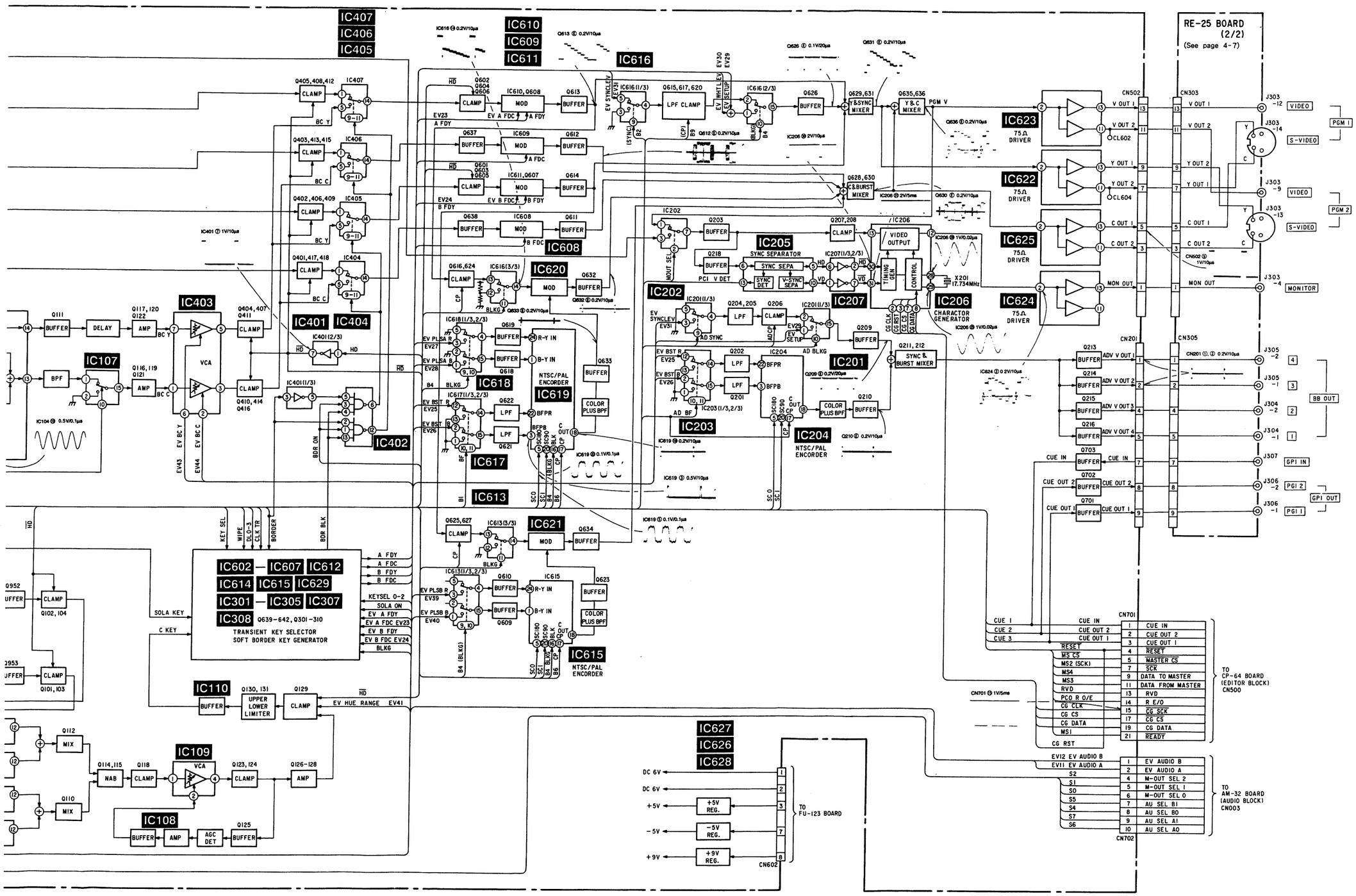
## 5. SWITCHER (1) BLOCK DIAGRAM




IC131 IC151
IC131 WRITE TIMING GEN.
IC151 COMP.
IC152—154 W-V SYNC SEP.
IC152 IC153 IC154 (A-LINE MEMORY BLOCK)
IC201 IC202 IC211 IC212 IC221 IC222
IC202 IC201 RAM
IC212 IC211 RAM
IC222 IC221 RAM
IC181 DIGITAL CHROMA DECORDER DIGITAL NOISE REDUCTION
IC301 MEMORY CONTROLLER
IC932—934 IC331 SCROLL GATE ARRAY INC MASK
IC371 PHASE COMP.
Q371 R-APC VCO
X371 14.31MHz
IC351 DIGITAL CHROMA ENCODER SPECIAL EFFECTS GEN.
IC401 IC421
IC401 D/A CONV.
IC421 D/A CONV.
Q401 BUFFER
Q421 BUFFER
IC451 READ TIMING GEN
IC452
IC471
IC472 D. LATCH
IC353
R-AFC VCO
D451
TP451
IC471(2/3,3/3)
(B-LINE MEMORY BLOCK)
CN201
CN102(2/2)
CN202(2/2)
CN102(1/2)
FSIG
YCONT
C CONT
Y D/A
C D/A
ARY
ARC
BRY
BRC
RHD
RSYNC
RVD
RUV
CHD
REVEN
AR-BUS
BR-BUS
TO SWITCHER BLOCK (2/2)
IC540 - IC543 IC524 IC532 IC530 IC533
IC526 GEN
X505 16MHz MAIN & WIPE MICOM CLOCK GEN.
O/90 DEG SUBCARRIER PLL
IC540—543 SHIFT COUNTER
IC525 KEY START SELECTOR
IC529 WIPE PROCESSOR
IC730 IC730 MAIN MICROCOMPUTER
IC711 IC711 I/O EXPANDER
IC703 RESET
IC501 IC506 IC502 IC514 IC503
CHROMA HUE PHASE SHIFTER
IC531 WIPE PATTERN GENERATOR
IC709 IC710 EEROM (SETTING / TUNNING / EFFECT DATA)
IC705 EVR D/A
IC706 EVR D/A
IC704 EVR D/A
IC707 EVR D/A
IC516 MEMORY CONTROL MICROCOMPUTER
IC522 IC522(1/2) IC522(2/2)
MON OUT
AUDIO SELECT
BUS
EVR

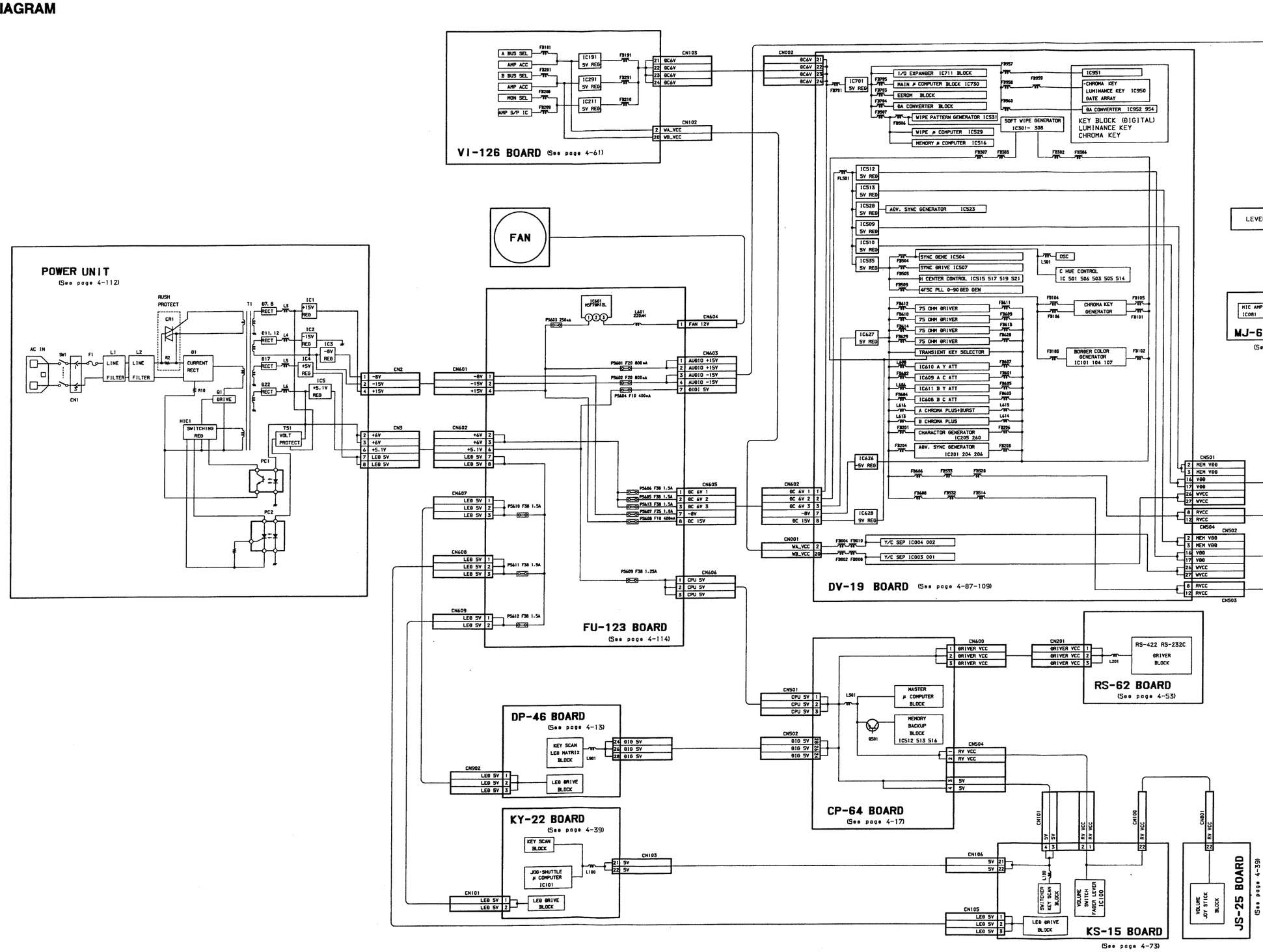
## 6. SWITCHER (2) BLOCK DIAGRAM

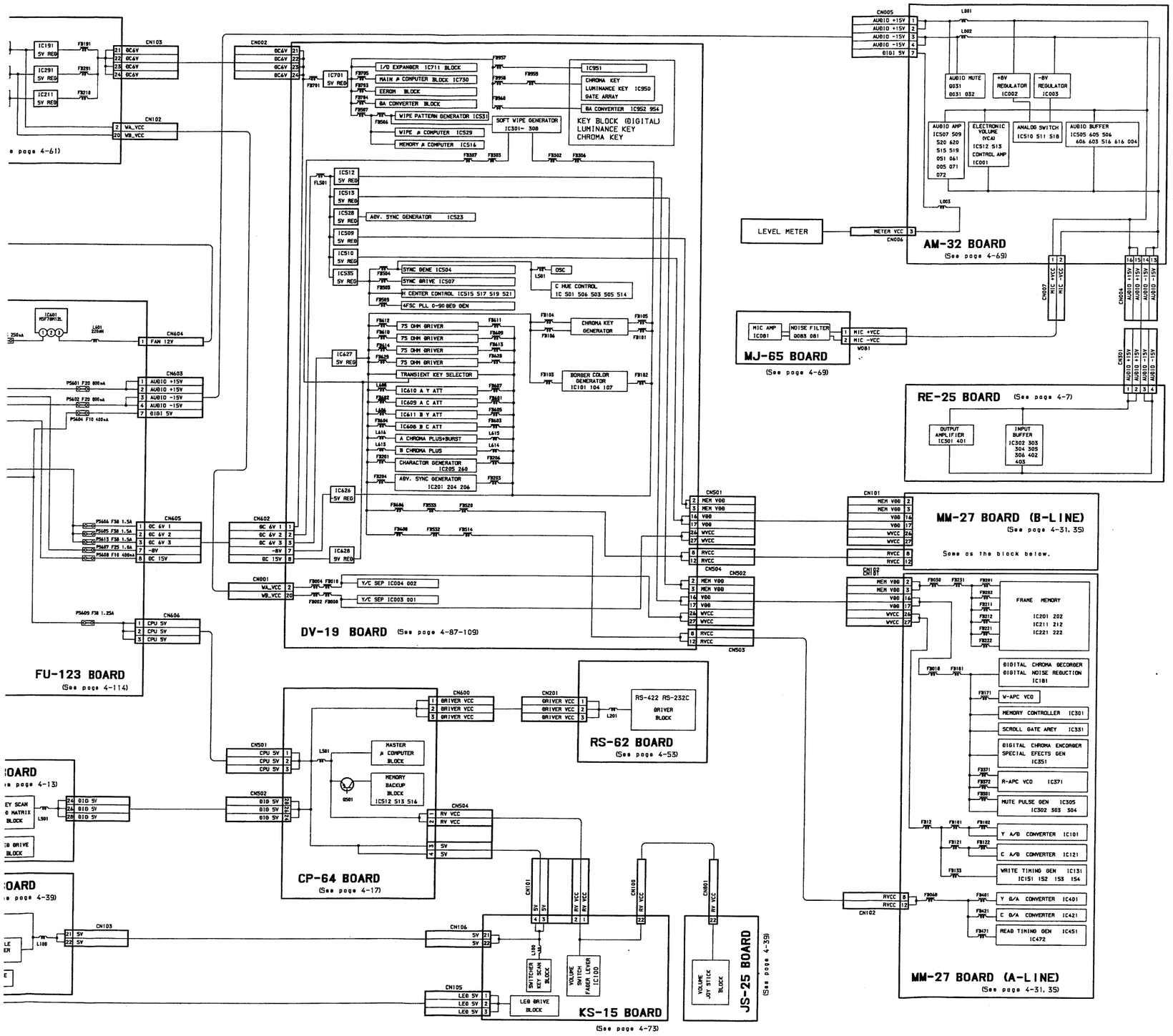



RE-25 BOARD (2/2)
(See page 4-7)
IC407
IC406
IC405
IC610
IC609
IC611
IC616
IC623
IC622
IC625
IC624
IC403
IC401
IC404
IC107
IC402
IC608
IC620
IC618
IC619
IC617
IC613
IC621
IC615
IC202
IC205
IC207
IC206
IC201
IC203
IC204
IC602 — IC607 IC612
IC614 IC615 IC629
IC301 — IC305 IC307
IC308 Q639-642, Q301-310
TRANSIENT KEY SELECTOR
SOFT BORDER KEY GENERATOR
IC110
IC109
IC108
IC627
IC626
IC628
TO FU-123 BOARD
TO CP-64 BOARD (EDITOR BLOCK) CN500
TO AM-32 BOARD (AUDIO BLOCK) CN003
VIDEO
S-VIDEO
PGM 1
PGM 2
MONITOR
BB OUT
GPI IN
GPI OUT
PGI 2
PGI 1

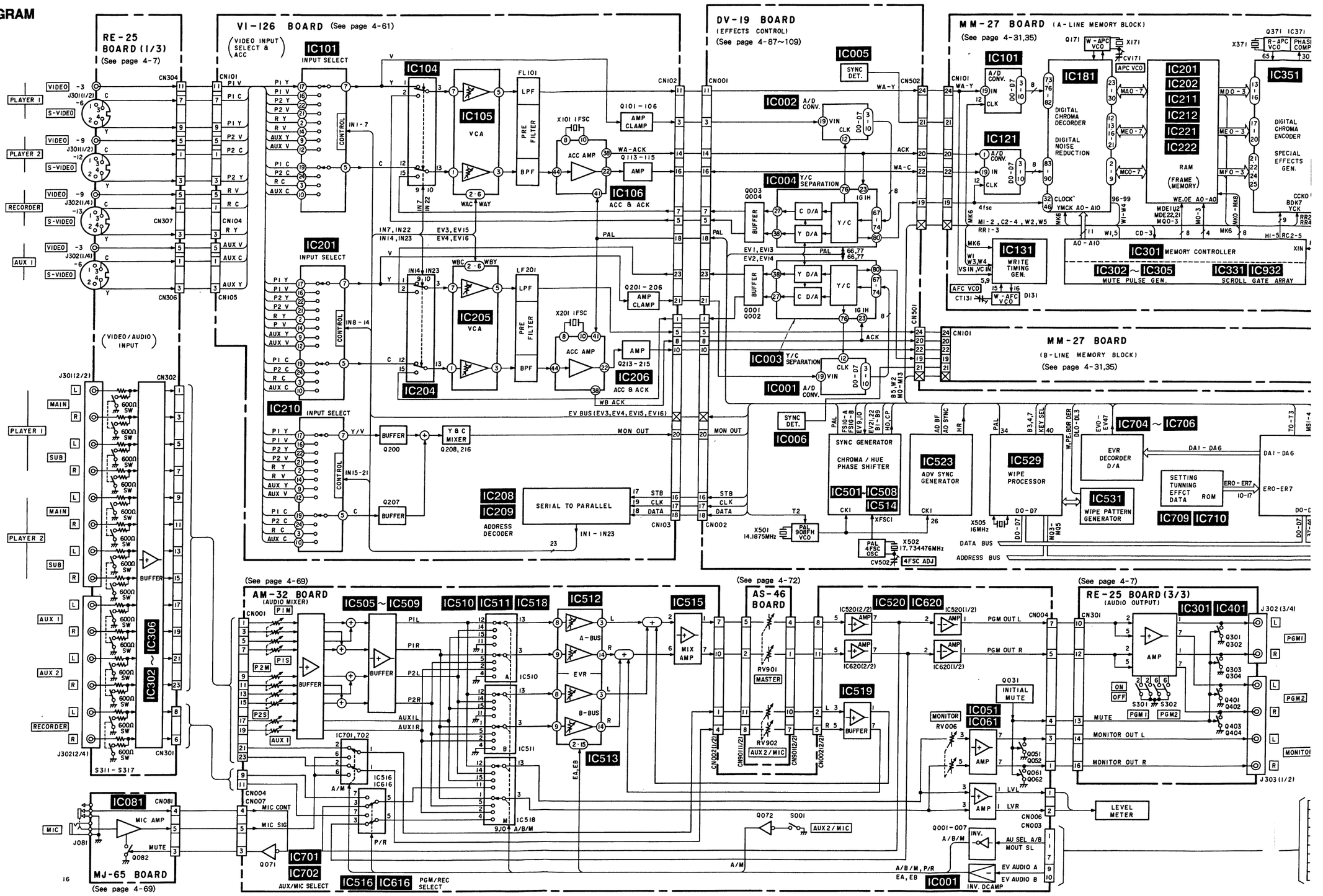
# FXE-100P

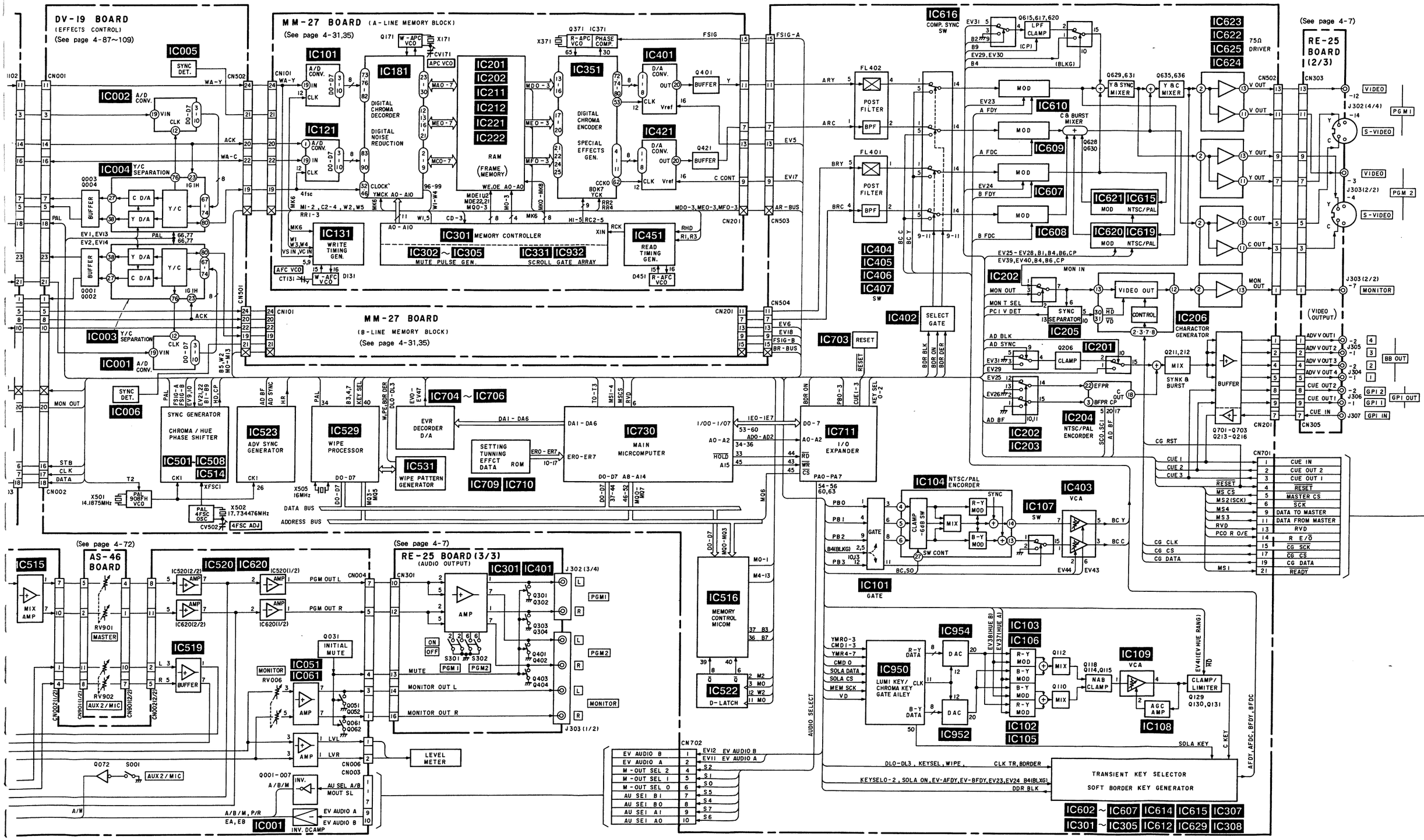
## 7. POWER BLOCK DIAGRAM

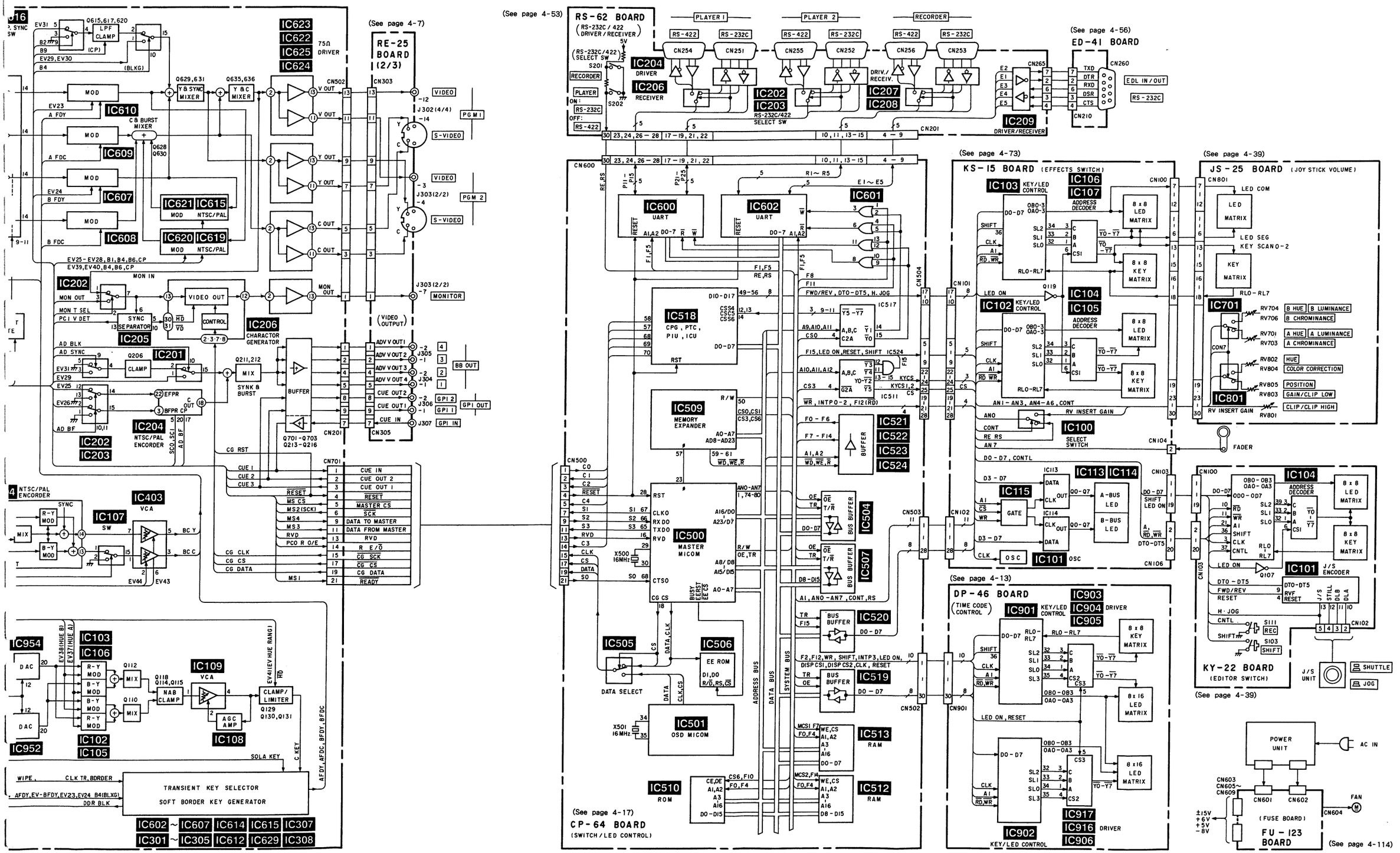



AM-32 BOARD
(See page 4-69)
MJ-65 BOARD
(See page 4-69)
RE-25 BOARD (See page 4-7)
MM-27 BOARD (B-LINE)
(See page 4-31, 35)
Same as the block below.
MM-27 BOARD (A-LINE)
(See page 4-31, 35)
DV-19 BOARD (See page 4-87-109)
FU-123 BOARD
(See page 4-114)
CP-64 BOARD
(See page 4-17)
RS-62 BOARD
(See page 4-55)
KS-15 BOARD
(See page 4-73)
JS-25 BOARD
(See page 4-39)
LEVEL METER
KEY BOARD
(See page 4-13)
KEY SCAN & MATRIX BLOCK
KEY DRIVE BLOCK
(See page 4-39)
I/O EXPANDER IC711 BLOCK
MAIN μ COMPUTER BLOCK IC730
EEROM BLOCK
8A CONVERTER BLOCK
WIPE PATTERN GENERATOR IC531
WIPE μ COMPUTER IC529
MEMORY μ COMPUTER IC516
SOFT WIPE GENERATOR IC301~308
KEY BLOCK (DIGITAL) LUMINANCE KEY CHROMA KEY
CHROMA KEY LUMINANCE KEY IC950 GATE ARRAY
8A CONVERTER IC952 954
ADV. SYNC GENERATOR IC523
SYNC GENE IC504
SYNC DRIVE IC507
H CENTER CONTROL IC515 517 519 521
4FSC PLL 0~90 DEG GEN
OSC
C HUE CONTROL IC 501 504 503 505 514
75 OHM DRIVER
TRANSIENT KEY SELECTOR
IC610 A Y ATT
IC609 A C ATT
IC611 B Y ATT
IC608 B C ATT
A CHROMA PLUS+BURST
B CHROMA PLUS
CHARACTOR GENERATOR IC205 260
ADV. SYNC GENERATOR IC201 204 206
CHROMA KEY GENERATOR
BORDER COLOR GENERATOR IC101 104 107
Y/C SEP IC004 002
Y/C SEP IC003 001
MASTER μ COMPUTER BLOCK
MEMORY BACKUP BLOCK IC512 513 516
SWITCHER KEY SCAN BLOCK
VOLUME SWITCH FADER LEVER IC100
LED DRIVE BLOCK
VOLUME JOY STICK BLOCK
AUDIO MUTE Q031 Q031 032
+8V REGULATOR IC002
-8V REGULATOR IC003
AUDIO AMP IC507 509 520 620 515 519 051 061 005 071 072
ELECTRONIC VOLUME DVCA IC512 513 CONTROL AMP IC001
ANALOG SWITCH IC510 511 518
AUDIO BUFFER IC505 605 506 606 603 516 616 004
MIC AMP IC081
NOISE FILTER Q083 081
OUTPUT AMPLIFIER IC501 401
INPUT BUFFER IC302 303 304 305 306 402 403
FRAME MEMORY IC201 202 IC211 212 IC221 222
DIGITAL CHROMA DECORDER DIGITAL NOISE REDUCTION IC181
W-APC VCO
MEMORY CONTROLLER IC301
SCROLL GATE ARRY IC351
DIGITAL CHROMA ENCORDER SPECIAL EFECTS GEN IC351
R-APC VCO IC371
MUTE PULSE GEN IC305 IC302 303 304
Y A/D CONVERTER IC101
C A/D CONVERTER IC121
WRITE TIMING GEN IC131 IC151 152 153 154
Y D/A CONVERTER IC401
C D/A CONVERTER IC421
READ TIMING GEN IC451 IC472

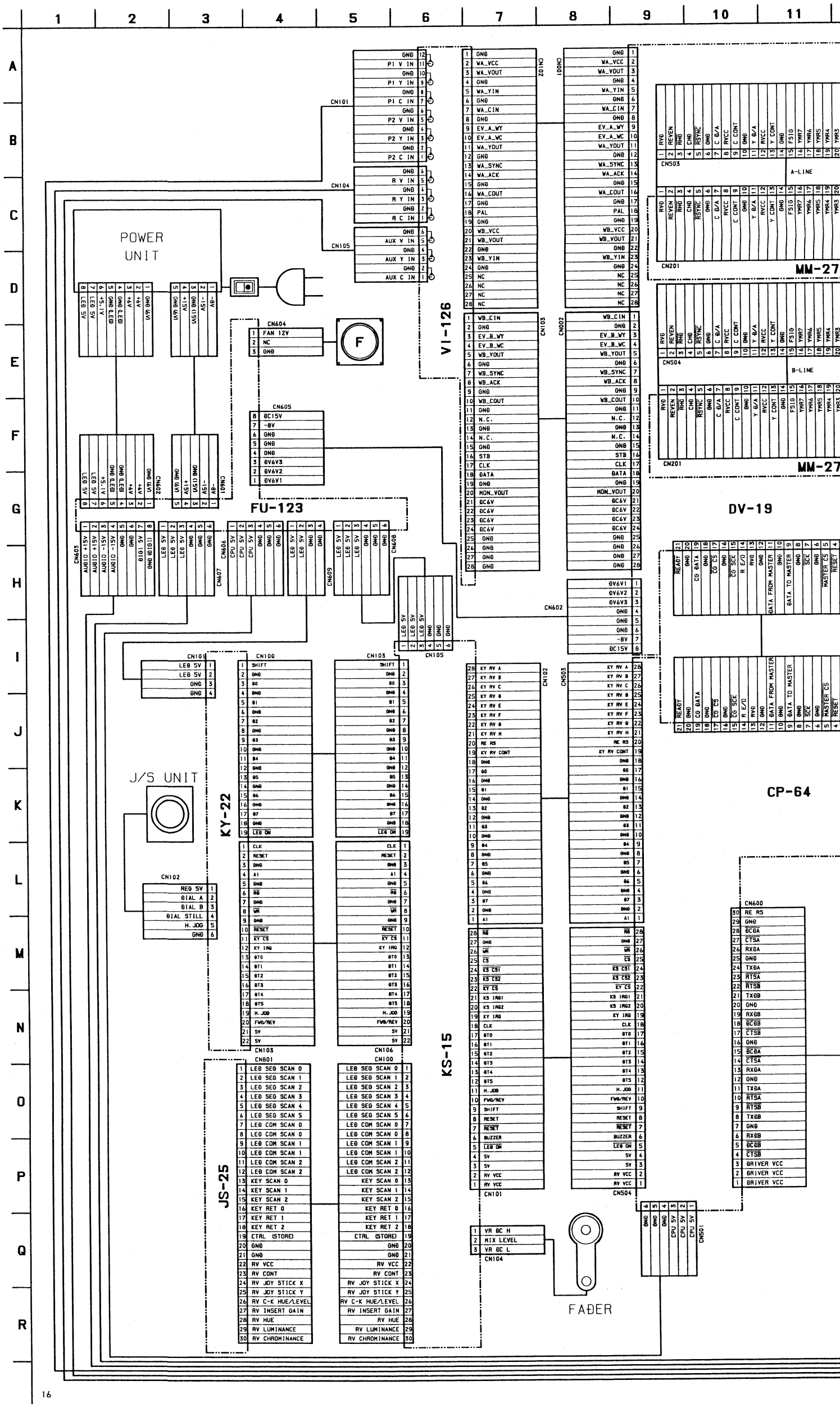
## 8. DETAILED BLOCK DIAGRAM




DV-19 BOARD
(EFFECTS CONTROL)
(See page 4-87~109)
MM-27 BOARD (A-LINE MEMORY BLOCK)
(See page 4-31,35)
MM-27 BOARD
(B-LINE MEMORY BLOCK)
(See page 4-31,35)
RE-25 BOARD (2/3)
(See page 4-7)
AS-46 BOARD
(See page 4-72)
RE-25 BOARD (3/3)
(AUDIO OUTPUT)
(See page 4-7)
IC101 A/D CONV.
IC121 A/D CONV.
IC181 DIGITAL CHROMA DECORDER
DIGITAL NOISE REDUCTION
IC201 IC202 IC211 IC212 IC221 IC222 RAM (FRAME MEMORY)
IC351 DIGITAL CHROMA ENCODER
SPECIAL EFFECTS GEN.
IC401 D/A CONV.
IC421 D/A CONV.
IC131 WRITE TIMING GEN.
IC301 MEMORY CONTROLLER
IC302~IC305 MUTE PULSE GEN.
IC331 IC932 SCROLL GATE ARRAY
IC451 READ TIMING GEN.
IC005 SYNC DET.
IC002 A/D CONV.
IC004 Y/C SEPARATION
IC003 Y/C SEPARATION
IC001 A/D CONV.
IC006 SYNC DET.
IC501~IC508 IC514 SYNC GENERATOR
CHROMA / HUE PHASE SHIFTER
IC523 ADV SYNC GENERATOR
IC529 WIPE PROCESSOR
IC531 WIPE PATTERN GENERATOR
IC704~IC706 EVR DECORDER D/A
IC709 IC710 SETTING TUNNING EFFCT DATA ROM
IC730 MAIN MICRCOMPUTER
IC711 I/O EXPANDER
IC616 COMP. SYNC SW
IC610 C & BURST MIXER
IC609 IC607 IC608 IC621 IC615 IC620 IC619
IC623 IC622 IC625 IC624 75Ω DRIVER
IC404 IC405 IC406 IC407 SW
IC402 SELECT GATE
IC703 RESET
IC202 IC205 IC206 CHARACTOR GENERATOR
IC201 IC204 NTSC/PAL ENCORDER
IC202 IC203
IC104 NTSC/PAL ENCORDER
IC107 SW
IC403 VCA
IC101 GATE
IC516 MEMORY CONTROL MICOM
IC522 D-LATCH
IC954 IC952 IC950 LUMI KEY/ CHROMA KEY GATE AILEY
IC103 IC106 IC102 IC105
IC109 VCA
IC108 AGC AMP
IC515 MIX AMP
IC520 IC620 IC519 BUFFER
IC051 IC061 AMP
IC001 INV. DCAMP
TRANSIENT KEY SELECTOR
SOFT BORDER KEY GENERATOR
IC602~IC607 IC614 IC615 IC307
IC301~IC305 IC612 IC629 IC308
VIDEO
S-VIDEO
PGM 1
PGM 2
MONITOR
BB OUT
GPI OUT
CUE IN
CUE OUT 2
CUE OUT 1
RESET
MASTER CS
SCK
DATA TO MASTER
DATA FROM MASTER
RVD
R E/O
CG SCK
CG CS
CG DATA
READY
LEVEL METER
AUDIO SELECT
DATA BUS
ADDRESS BUS


RS-62 BOARD
(RS-232C / 422 DRIVER / RECEIVER)
PLAYER 1
PLAYER 2
RECORDER
RS-422
RS-232C
IC204 DRIVER
IC206 RECEIVER
IC202 IC203 RS-232C/422 SELECT SW
IC207 IC208 DRIV./RECEIV
IC209 DRIVER/RECEIVER
CN254 CN251 CN255 CN252 CN256 CN253
CN201
(See page 4-56)
ED-41 BOARD
CN260
CN210
EDL IN/OUT
RS-232C
(See page 4-53)
(See page 4-7)
RE-25 BOARD (2/3)
IC623 IC622 IC625 IC624 75Ω DRIVER
CN303
CN502
CN305
VIDEO
PGM 1
S-VIDEO
PGM 2
MONITOR
BB OUT
GPI OUT
GPI IN
IC610 IC609 IC607 IC608 MOD
IC621 IC615 IC620 IC619 MOD NTSC/PAL
C8 BURST MIXER
Y&SYNC MIXER
Y&C MIXER
IC202 IC205 IC206 IC201
VIDEO OUT
CONTROL
CHARACTOR GENERATOR
SYNC SEPARATOR
CLAMP
MIX
SYNK & BURST
BUFFER
IC204 NTSC/PAL ENCORDER
IC202 IC203
CN701
CUE IN
CUE OUT 2
CUE OUT 1
MASTER CS
DATA TO MASTER
DATA FROM MASTER
RVD
READY
(See page 4-73)
KS-15 BOARD (EFFECTS SWITCH)
IC103 KEY/LED CONTROL
IC106 IC107 ADDRESS DECODER
IC102 KEY/LED CONTROL
IC104 IC105 ADDRESS DECODER
8x8 LED MATRIX
8x8 KEY MATRIX
IC100 SELECT SWITCH
RV INSERT GAIN
CN100
CN101
CN104
(See page 4-39)
JS-25 BOARD (JOY STICK VOLUME)
CN801
LED COM
LED SEG
KEY SCAN0-2
RLO-RL7
IC701
RV704 B HUE / B LUMINANCE
RV706 B CHROMINANCE
RV701 A HUE / A LUMINANCE
RV703 A CHROMINANCE
RV802 HUE
RV804 COLOR CORRECTION
RV805 POSITION
RV803 GAIN/CLIP LOW
RV801 CLIP/CLIP HIGH
IC801
FADER
IC600 UART
IC602 UART
IC601
IC518 CPG, PTC, PIU, ICU
IC509 MEMORY EXPANDER
IC500 MASTER MICOM
IC501 OSD MICOM
IC505 DATA SELECT
IC506 EE ROM
IC510 ROM
IC521 IC522 IC523 IC524 BUFFER
IC504 IC507 BUS BUFFER
IC520 IC519 BUS BUFFER
IC513 IC512 RAM
CN500
CN504
CN503
CN502
CN600
ADDRESS BUS
DATA BUS
SYSTEM BUS
(See page 4-17)
CP-64 BOARD
(SWITCH / LED CONTROL)
(See page 4-13)
DP-46 BOARD
(TIME CODE CONTROL)
IC901 KEY/LED CONTROL
IC903 IC904 IC905 DRIVER
IC902 KEY/LED CONTROL
IC917 IC916 IC906 DRIVER
8x16 LED MATRIX
CN901
IC115 GATE
IC113 IC114
A-BUS LED
B-BUS LED
OSC
IC101
IC101 J/S ENCODER
KY-22 BOARD
(EDITOR SWITCH)
SHUTTLE
JOG
J/S UNIT
POWER UNIT
AC IN
FAN
CN603 CN605 CN609
CN601 CN602
CN604
(FUSE BOARD)
FU-123 BOARD
±15V
+6V
+5V
-8V
(See page 4-114)
IC954 IC103 IC106 IC109 VCA IC108 AGC AMP
IC952 IC102 IC105
CLAMP/LIMITER
NAB CLAMP
TRANSIENT KEY SELECTOR
SOFT BORDER KEY GENERATOR
IC602~IC607 IC614 IC615 IC307
IC301~IC305 IC612 IC629 IC308
IC403 VCA
IC107 SW
4 NTSC/PAL ENCORDER

# SECTION 4
# PRINTED WIRING BOARDS AND DIAGRAMS
## 1. FRAME SCHEMATIC DIAGRAM




**THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.**
**(In addition to this, the necessary note is printed in each block.)**

**For printed wiring boards:**

- ○——— : indicated a lead wire mounted on the component side.
- ○ : Through hole.
- ▒▒▒ : Pattern from the side which enables seeing.

(Other pattern is not shown.)

| Caution : | |
|---|---|
| Side A: (Conductor Side) | Parts on the pattern face side seen from the pattern face are indicated. |
| Side B: (Component side) | Parts on the parts face side seen from the parts face are indicated. |

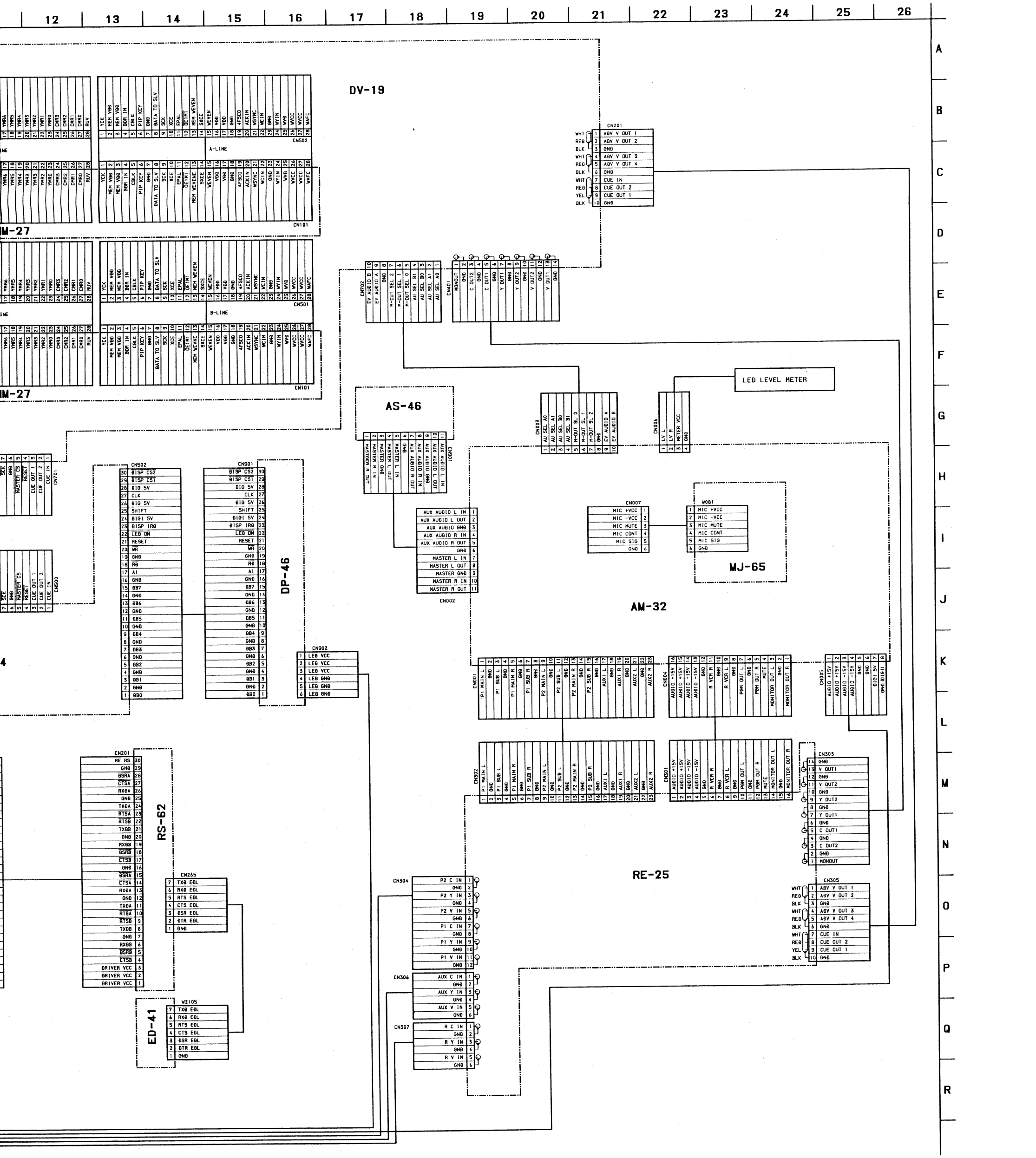
**For schematic diagram:**

- Caution when replacing chip parts.
  New parts must be attached after removal of chip.
  Be careful not to heat the minus side of tantalum capacitor, because it is damaged by the heat.
- All resistors are in ohms, 1/4 W unless otherwise noted.
  Chip resistors: 1/10 W unless otherwise noted.
  kΩ : 1000 Ω , MΩ : 1000kΩ .
- All capacitors are in μF unless otherwise noted. pF: μμF.
  50V or less are not indicated except for electrolytics and tantalums.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⊣▭⊢ : nonflammable resistor.
- ⊣∿⊢ : fusible resistor.
- ▭ : panel designation.
- △ : internal component.*
- ——— : B + Line.*
- - - - : B − Line.*
- ⇨ : IN/OUT direction of B line (+, − ).*
- Circled numbers refer to waveforms.*
- Voltage are dc between ground and measurement point when color bar is connected to PLAYER 1 and PLAYER 2.
  (input impedance: dc 10MΩ )
- Readings are taken with a color-bar signal input.*
- Readings are taken with a digital multimeter (DC10 MΩ).*
- Voltage are taken with a VOM (input impedance 10 MΩ).
- Voltage variations may be noted due to normal production tolerances.

**Note : The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.**
**Replace only with part number specified.**

When indicating parts by reference number, please include the board name.

- * : indicated by the color red.

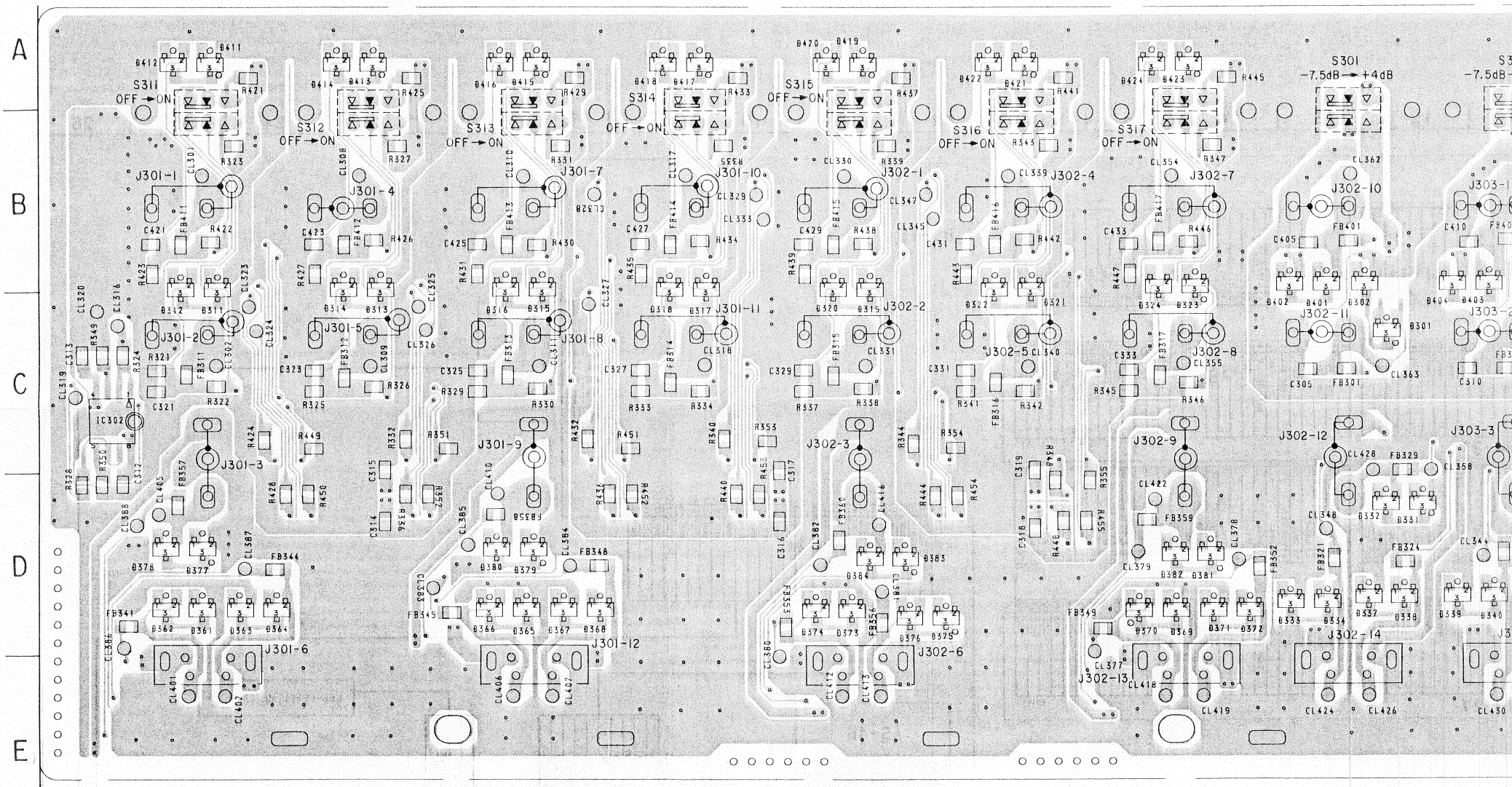

12 13 14 15 16 17 18 19 20 21 22 23 24 25 26
A B C D E F G H I J K L M N O P Q R
DV-19
CN502
A-LINE
CN101
IM-27
B-LINE
CN501
CN701
CN500
CN702
CN401
CN003
CN006
LED LEVEL METER
AS-46
CN901
CN002
CN007
W081
MJ-65
AM-32
DP-46
CN902
CN001
CN004
CN005
CN502
CN901
CN201
RS-62
CN265
W2105
ED-41
CN302
CN301
CN303
CN304
CN306
CN307
CN305
RE-25

## 2. PRINTED WIRING BOARDS AND DIAGRAMS

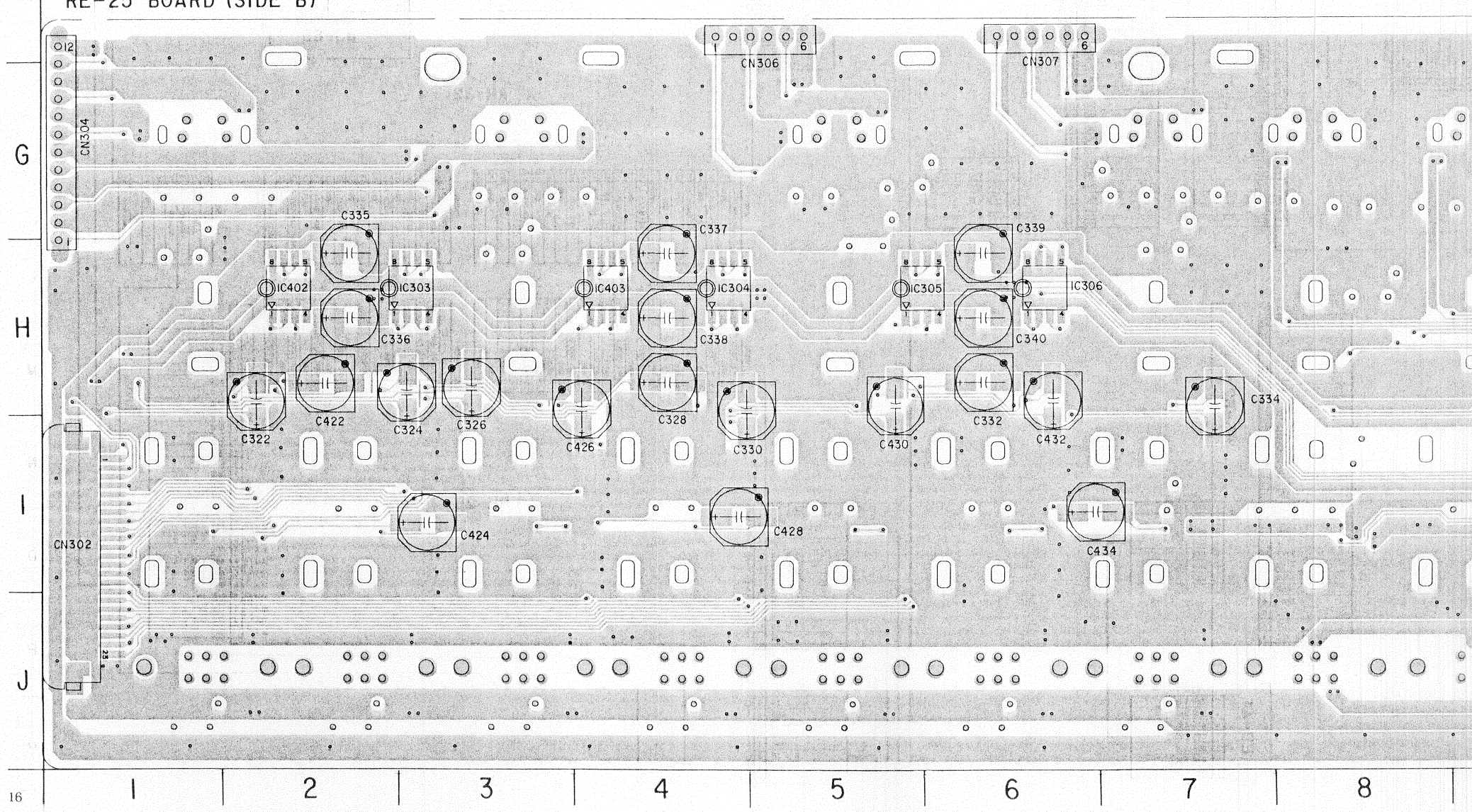
### RE-25 (VIDEO, AUDIO INPUT/OUTPUT) PRINTED WIRING BOARD

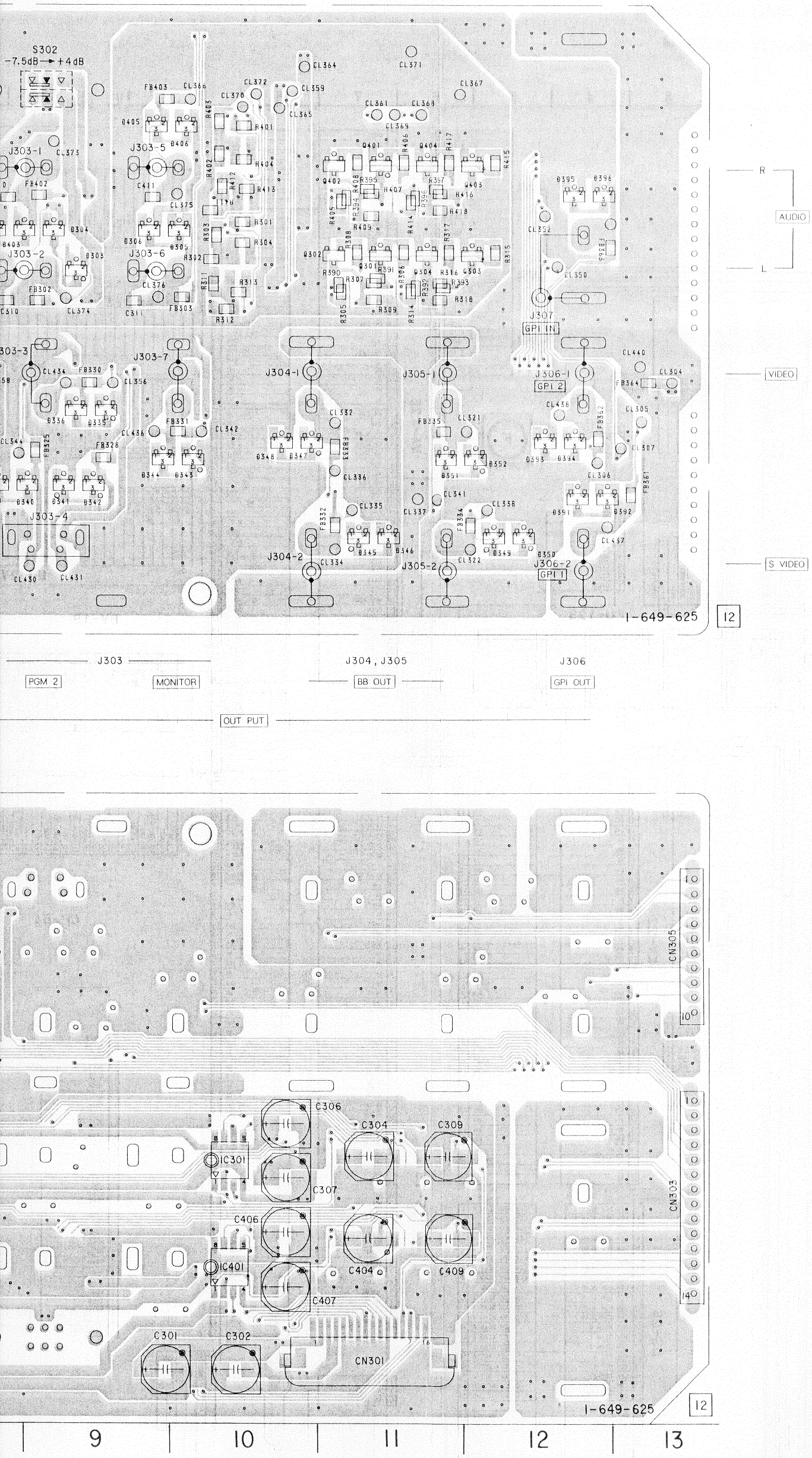
– Ref No. RE-25 BOARD : 3,000 Seriese –

RE-25 BOARD (SIDE A)



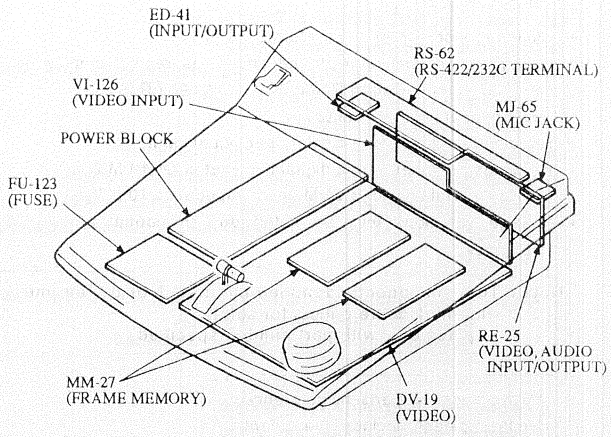

RE-25 BOARD (SIDE B)





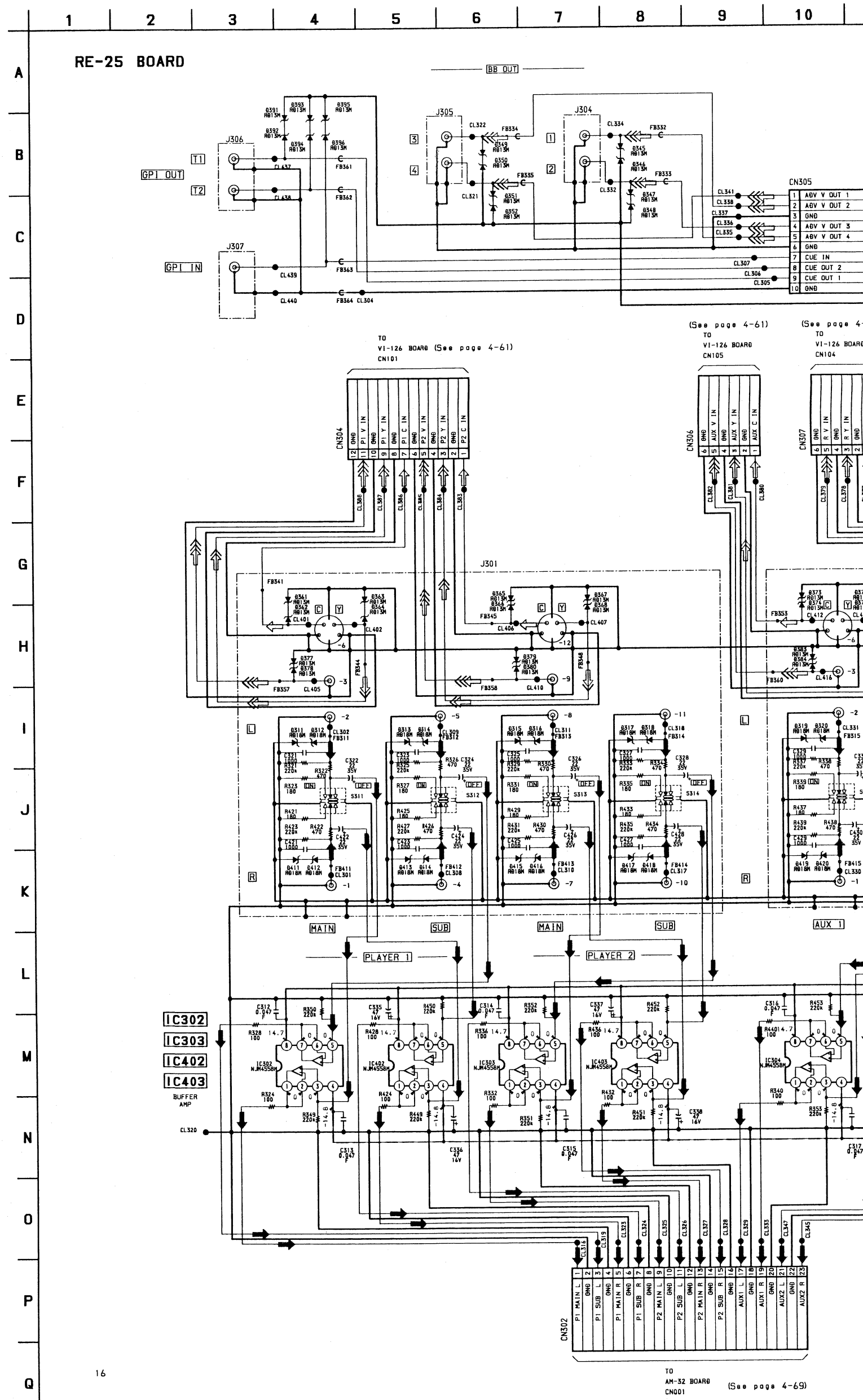

**RE-25 BOARD**

| | | | |
|---|---|---|---|
| CN301 | J-11 | D371 | D-7 |
| CN302 | I-1 | D372 | D-7 |
| CN303 | I-13 | D373 | D-5 |
| CN304 | G-1 | D374 | D-5 |
| CN305 | G-13 | D375 | D-5 |
| CN306 | F-5 | D376 | D-5 |
| CN307 | F-6 | D377 | D-1 |
| | | D378 | D-1 |
| D301 | C-8 | D379 | D-3 |
| D302 | B-8 | D380 | D-3 |
| D303 | C-9 | D381 | D-7 |
| D304 | B-9 | D382 | D-7 |
| D305 | B-10 | D383 | D-5 |
| D306 | B-9 | D384 | D-5 |
| D311 | C-1 | D391 | D-12 |
| D312 | C-1 | D392 | D-12 |
| D313 | B-2 | D393 | D-12 |
| D314 | B-2 | D394 | D-12 |
| D315 | C-3 | D395 | B-12 |
| D316 | C-3 | D396 | B-12 |
| D317 | B-4 | D401 | B-8 |
| D318 | B-4 | D402 | B-7 |
| D319 | B-5 | D403 | B-8 |
| D320 | B-5 | D404 | B-8 |
| D321 | B-6 | D405 | B-9 |
| D322 | B-6 | D406 | B-10 |
| D323 | B-7 | D411 | A-1 |
| D324 | B-7 | D412 | A-1 |
| D331 | D-8 | D413 | A-2 |
| D332 | D-8 | D414 | A-2 |
| D333 | D-7 | D415 | A-3 |
| D334 | D-8 | D416 | A-3 |
| D335 | D-9 | D417 | A-4 |
| D336 | D-9 | D418 | A-4 |
| D337 | D-8 | D419 | A-5 |
| D338 | D-8 | D420 | A-5 |
| D339 | D-8 | D421 | A-6 |
| D340 | D-9 | D422 | A-6 |
| D341 | D-9 | D423 | A-7 |
| D342 | D-9 | D424 | A-6 |
| D343 | D-10 | | |
| D344 | D-9 | IC301 | I-10 |
| D345 | E-11 | IC302 | C-1 |
| D346 | E-11 | IC303 | H-3 |
| D347 | D-10 | IC304 | H-4 |
| D348 | D-10 | IC305 | H-5 |
| D349 | E-12 | IC306 | H-6 |
| D350 | E-12 | IC401 | I-10 |
| D351 | D-12 | IC402 | H-2 |
| D352 | D-12 | IC403 | H-4 |
| D361 | D-1 | | |
| D362 | D-1 | Q301 | C-11 |
| D363 | D-2 | Q302 | C-11 |
| D364 | D-2 | Q303 | C-12 |
| D365 | D-3 | Q304 | C-11 |
| D366 | D-3 | Q401 | B-11 |
| D367 | D-3 | Q402 | B-11 |
| D368 | D-3 | Q403 | B-12 |
| D369 | D-7 | Q404 | B-11 |
| D370 | D-7 | | |



## RE-25 (VIDEO,AUDIO INPUT/OUTPUT) SCHEMATIC DIAGRAM

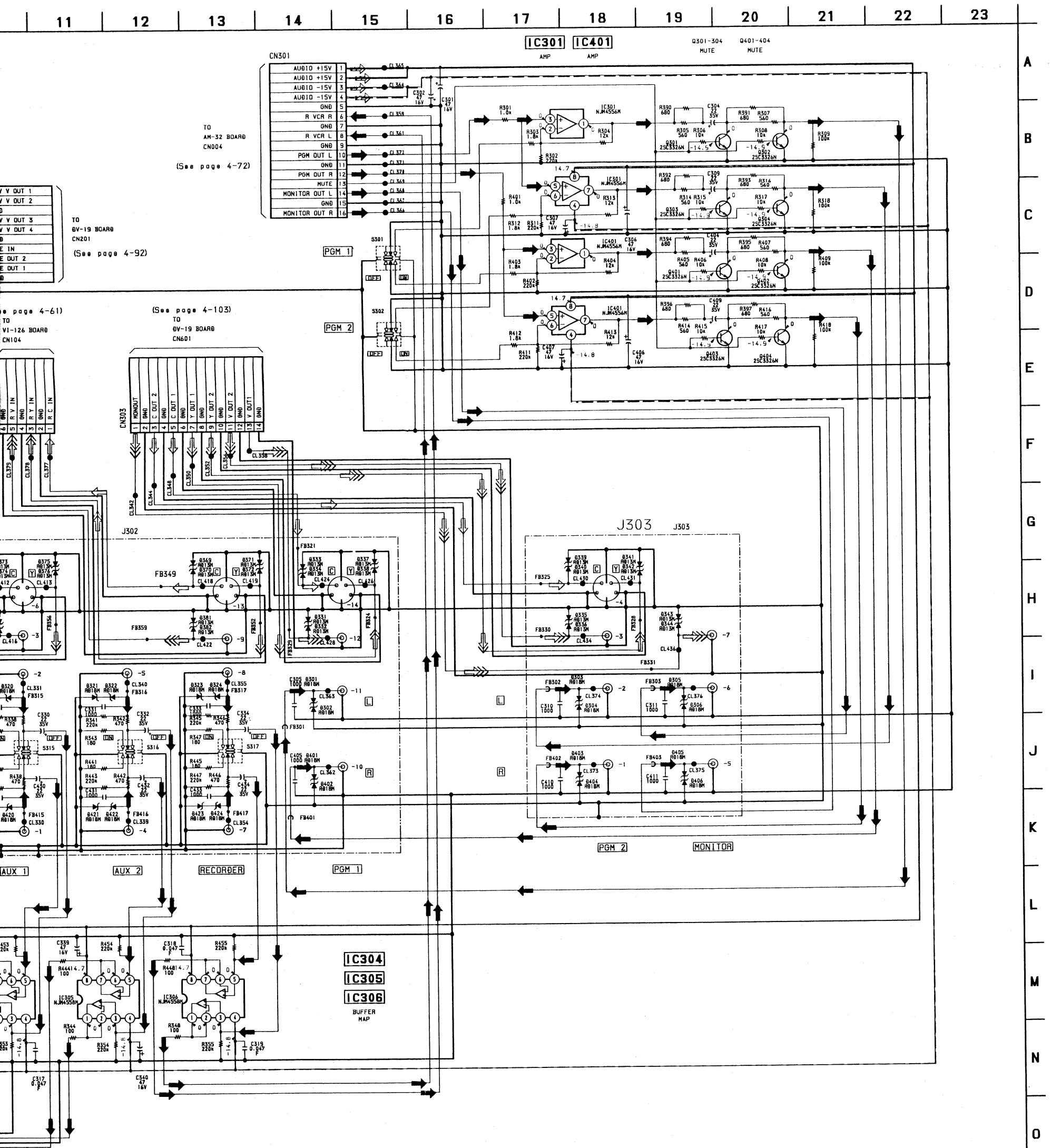
– Ref No. RE-25 BOARD : 3,000 Seriese –




16

• **SIGNAL PATH (ANALOG)**

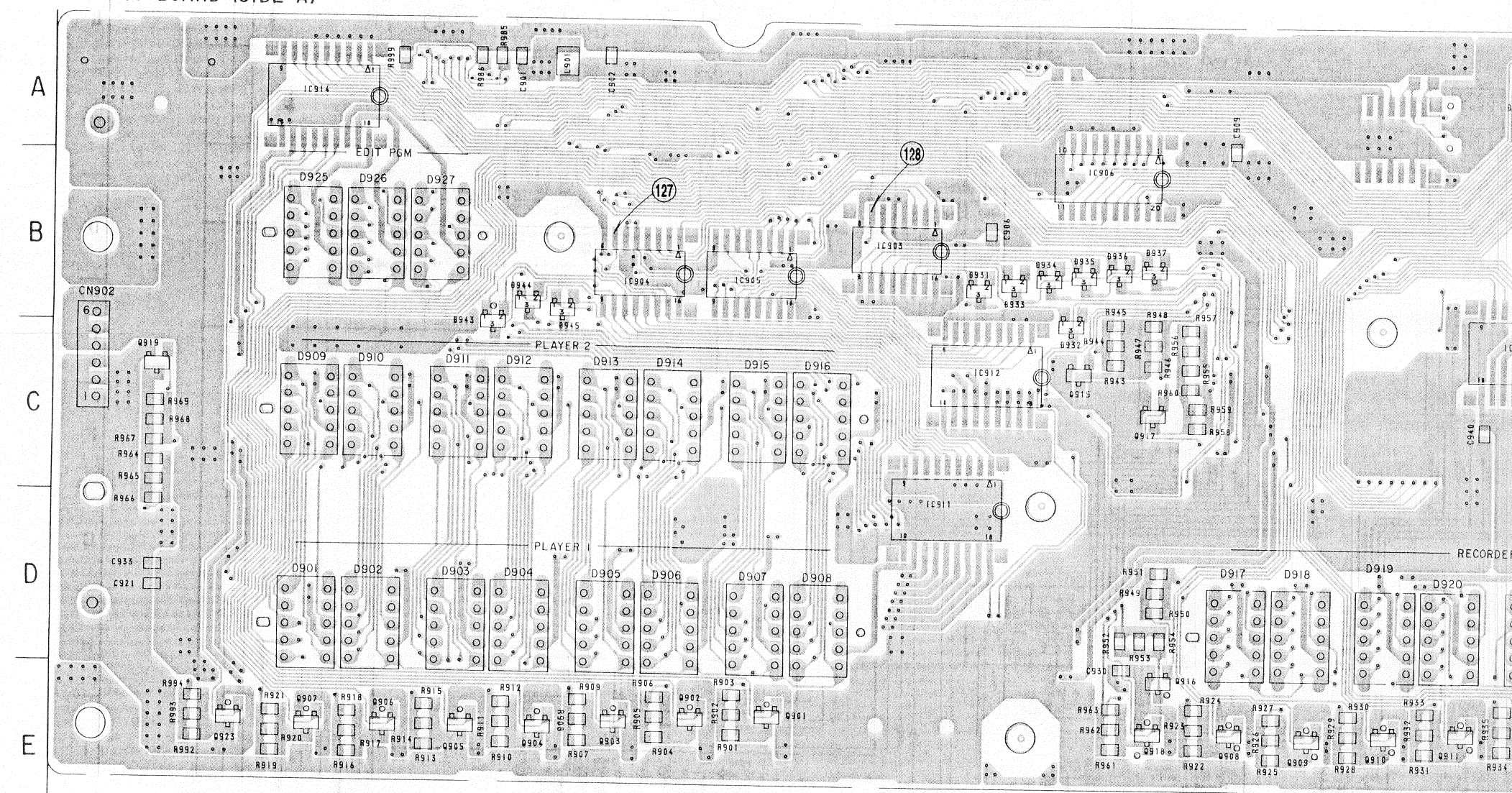
| VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|
| CHROMA | Y | Y/CHROMA | |
| ⇨ | ⇨ | ⇨ | ➡ |


11
12
13
14
15
16
17
18
19
20
21
22
23
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
IC301 AMP
IC401 AMP
Q301-304 MUTE
Q401-404 MUTE
CN301
AUDIO +15V
AUDIO +15V
AUDIO -15V
AUDIO -15V
GND
R VCR R
GND
R VCR L
GND
PGM OUT L
GND
PGM OUT R
MUTE
MONITOR OUT L
GND
MONITOR OUT R
TO AM-32 BOARD CN004
(See page 4-72)
TO 8V-19 BOARD CN201
(See page 4-92)
(See page 4-61)
TO VI-126 BOARD CN104
(See page 4-103)
TO 8V-19 BOARD CN601
CN303
MONOUT
GND
C OUT 2
GND
C OUT 1
GND
Y OUT 1
GND
Y OUT 2
GND
V OUT 2
GND
V OUT1
GND
R V IN
GND
R Y IN
GND
R C IN
S301
S302
PGM 1
PGM 2
OFF
ON
J302
J303
FB349
FB359
FB321
FB325
FB330
FB328
FB331
FB301
FB401
FB315
FB316
FB317
FB415
FB416
FB417
FB402
FB403
L
R
AUX 1
AUX 2
RECORDER
PGM 1
PGM 2
MONITOR
IC304
IC305
IC306
BUFFER MAP

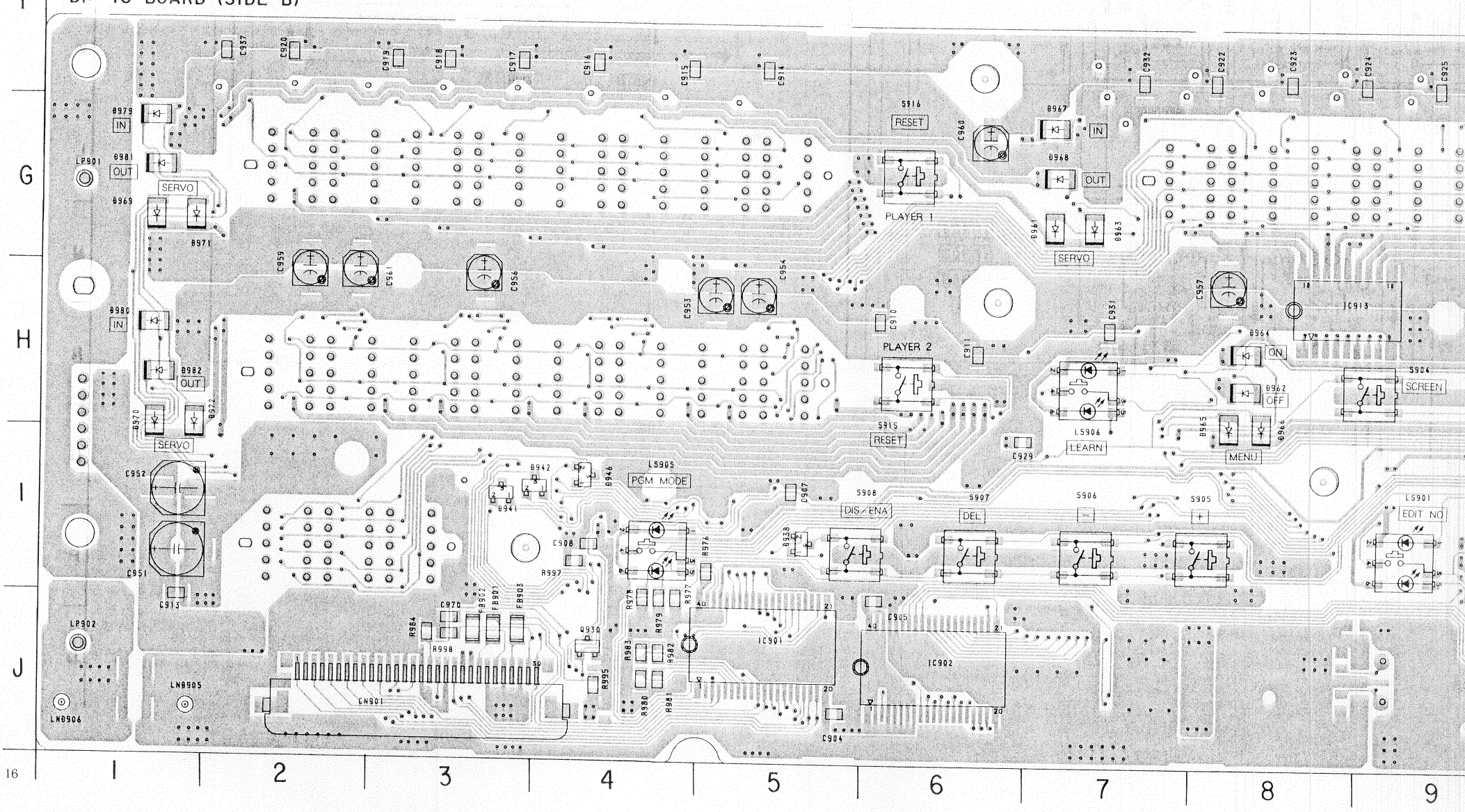
## DP-46 (DISPLAY) PRINTED WIRING BOARD

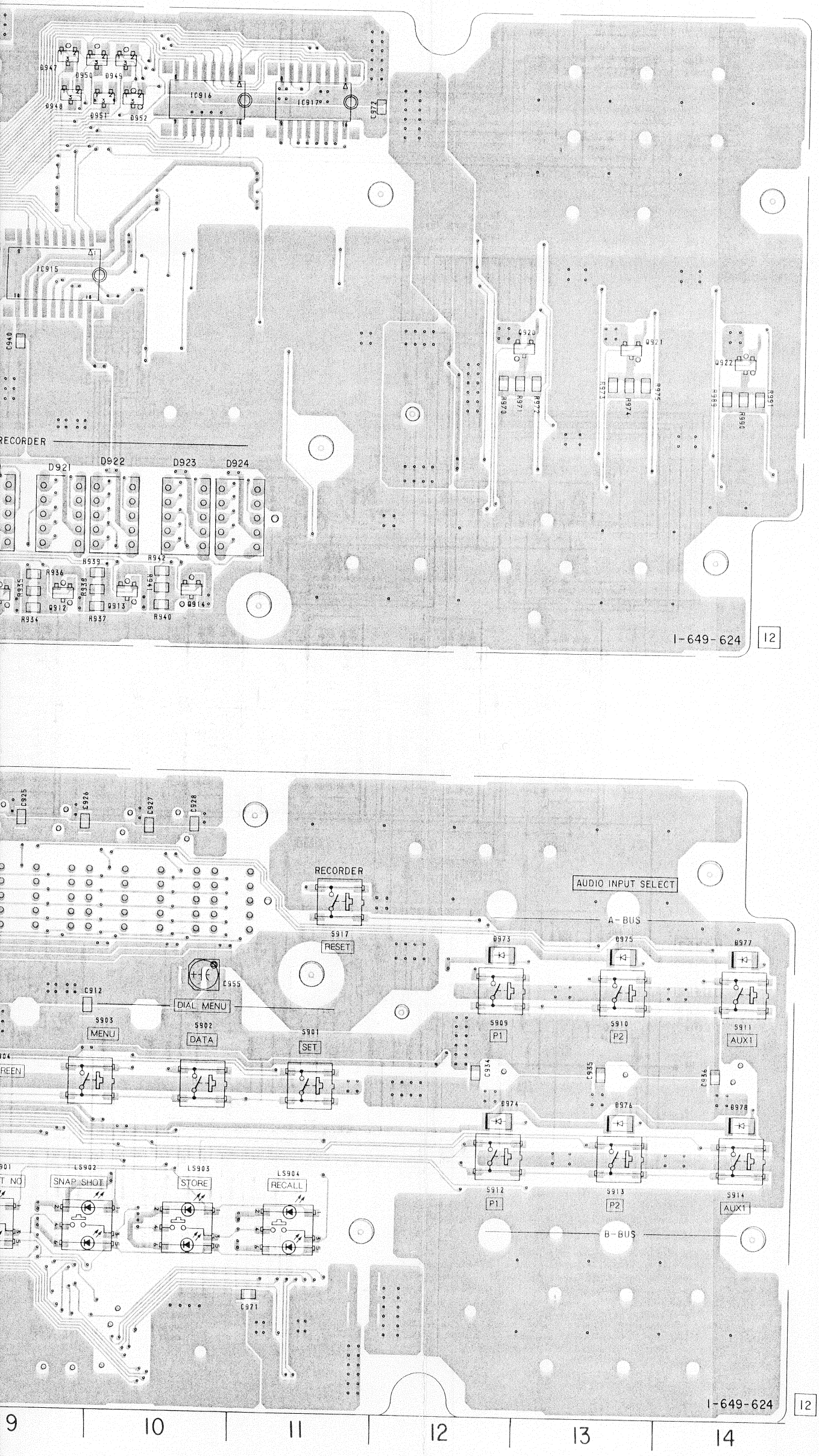
– Ref No. DP-46 BOARD : 2,000 Seriese –

DP-46 BOARD (SIDE A)




DP-46 BOARD (SIDE B)

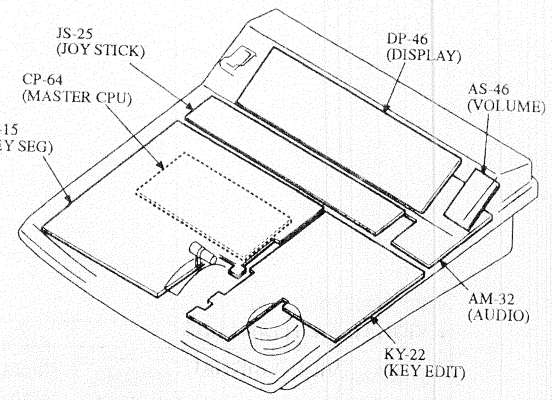







## DP-46 BOARD

| | | | |
|---|---|---|---|
| CN901 | J-3 | D967 | G-7 |
| CN902 | B-1 | D968 | G-7 |
| | | D969 | G-1 |
| D901 | D-2 | D970 | H-1 |
| D902 | D-2 | D971 | G-1 |
| D903 | D-3 | D972 | H-1 |
| D904 | D-3 | D973 | G-12 |
| D905 | D-4 | D974 | H-12 |
| D906 | D-4 | D975 | G-13 |
| D907 | D-5 | D976 | H-13 |
| D908 | D-5 | D977 | G-14 |
| D909 | C-2 | D978 | H-14 |
| D910 | C-2 | D979 | G-1 |
| D911 | C-3 | D980 | H-1 |
| D912 | C-3 | D981 | G-1 |
| D913 | C-4 | D982 | H-1 |
| D914 | C-4 | | |
| D915 | C-5 | IC901 | J-5 |
| D916 | C-5 | IC902 | J-6 |
| D917 | D-7 | IC903 | B-5 |
| D918 | D-8 | IC904 | B-4 |
| D919 | D-8 | IC905 | B-4 |
| D920 | D-9 | IC906 | A-7 |
| D921 | D-9 | IC911 | C-6 |
| D922 | D-9 | IC912 | C-6 |
| D923 | D-10 | IC913 | H-8 |
| D924 | D-10 | IC914 | A-2 |
| D925 | B-2 | IC915 | B-9 |
| D926 | B-2 | IC916 | A-10 |
| D927 | B-3 | IC917 | A-11 |
| D931 | B-6 | | |
| D932 | B-6 | Q901 | E-5 |
| D933 | B-6 | Q902 | E-4 |
| D934 | B-6 | Q903 | E-4 |
| D935 | B-6 | Q904 | E-3 |
| D936 | B-7 | Q905 | E-3 |
| D937 | B-7 | Q906 | E-2 |
| D938 | I-5 | Q907 | E-2 |
| D941 | I-3 | Q908 | E-7 |
| D942 | I-3 | Q909 | E-8 |
| D943 | B-3 | Q910 | E-8 |
| D944 | B-3 | Q911 | E-9 |
| D945 | B-3 | Q912 | E-9 |
| D946 | I-4 | Q913 | E-10 |
| D947 | A-9 | Q914 | E-10 |
| D948 | A-9 | Q915 | C-6 |
| D949 | A-9 | Q916 | E-7 |
| D950 | A-9 | Q917 | C-7 |
| D951 | A-9 | Q918 | E-7 |
| D952 | A-10 | Q919 | C-1 |
| D961 | G-7 | Q920 | C-12 |
| D962 | H-8 | Q921 | C-13 |
| D963 | G-7 | Q922 | C-14 |
| D964 | H-8 | Q923 | E-2 |
| D965 | H-8 | Q930 | J-4 |
| D966 | H-8 | | |

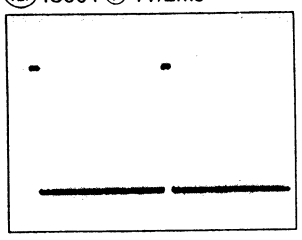


## DP-46 (DISPLAY) SCHEMATIC DIAGRAM

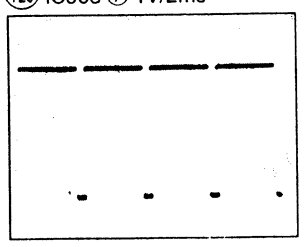
– Ref No. DP-46 BOARD : 2,000 Seriese –

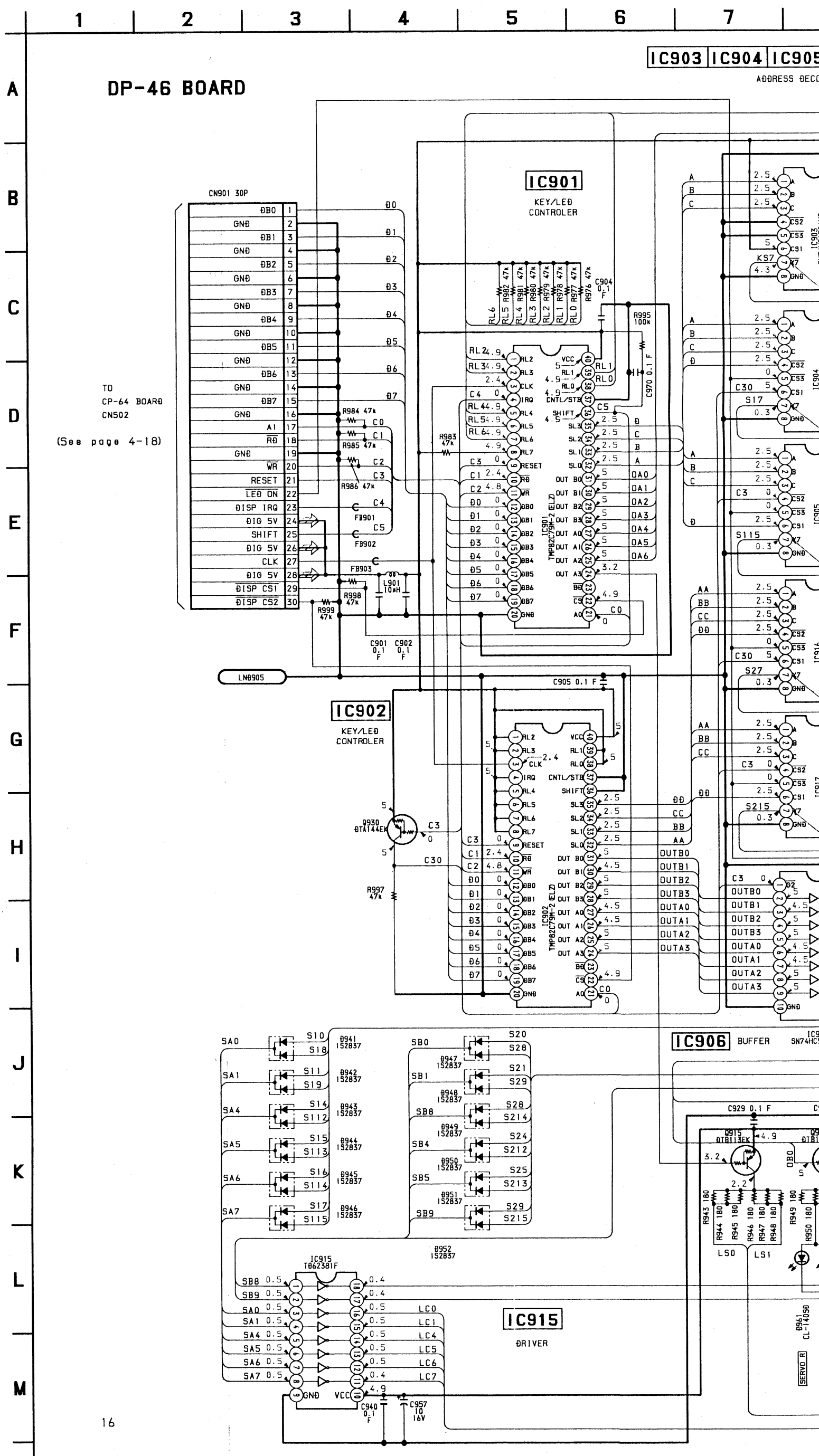
DP-46 board

(127) IC904 ⑦ 1V/2ms



(128) IC903 ⑦ 1V/2ms





IC905 | IC916 | IC917

DRESS DECODER

LN0907
LN0908

KS7 KS6 KS5 KS4 KS3 KS2 KS1 KS0

D938 1S2835 D937 1S2835 D936 1S2835 D935 1S2835 D934 1S2835 D933 1S2835 D932 1S2835 D931 1S2835

SCREEN S904 | MENU S903 | DATA S902 | SET S901 | RECALL | STORE | SNAP SHOT | EDIT ON

LS904 LS22BB2S0/S0 LS903 LS22BB2S0/S0 LS902 LS22BB2S0/S0 LS901 LS22BB2S0/S0

LS906 LS22BB2S0/S0 LS905 LS22BB2S0/S0

LEARN | PGM MODE

S908 DIS/ENA | S907 DEL | S906 - | S905 +

RL0 RL1 RL2 RL3

S911 A AUX | S910 A-P2 | S909 A-P1

S914 B AUX | B-P2 S913 | S912 B-P1

RESET R S917 | RESET P1 S916 | RESET P2 S915

C906 0.1 F C907 0.1 F C908 0.1 F C971 0.1 F C972 0.1 F C909 0.1 F

IC903 SN74HC138ANS IC904 SN74HC238ANS IC905 SN74HC238ANS IC916 SN74HC238ANS IC917 SN74HC238ANS IC906 SN74HC541ANS

S10 S11 S12 S13 S14 S15 S16 S18 S19 S110 S111 S112 S113 S114 S20 S21 S22 S23 S24 S25 S26 S28 S29 S210 S211 S212 S213 S214

IC911 | IC912 | IC913 | IC914 DRIVER

IC911 T062381F IC912 T062381F IC913 T062381F IC914 T062381F

E10 E11 E12 E13 E14 E15 E16 E17 E18 E19 E110 E111 E112 E113 E114 E115 E20 E21 E22 E23 E24 E25 E26 E27 E210 E211 E212

SB0 SB1 SB4 SB5 SB8 SY0 SY1 SY4 SY5 SS8

C910 0.1 F C911 0.1 F C912 0.1 F C913 0.1 F C953 10 16V C954 10 16V C955 10 16V C956 10 16V

C914 0.1 F C915 0.1 F C916 0.1 F C917 0.1 F C918 0.1 F C919 0.1 F C920 0.1 F C959 10 16V

Q901 DTB113EK Q902 DTB113EK Q903 DTB113EK Q904 DTB113EK Q905 DTB113EK Q906 DTB113EK Q907 DTB113EK

R901 180 R902 R903 180 R904 180 R905 R906 180 R907 180 R908 R909 180 R910 180 R911 R912 180 R913 180 R914 R915 180 R916 180 R917 R918 180 R919 180 R920 R921 180

Q901-907 SEGMENT DRIVER

D901 LA-301VL D902 LA-301VL D903 LA-301VL D904 LA-301VL D905 LA-301VL D906 LA-301VL D907 LA-301VL

D909 LA-301VL D910 LA-301VL D911 LA-301VL D912 LA-301VL D913 LA-301VL D914 LA-301VL D915 LA-301VL

C922 0.1 F C923 0.1 F C924 0.1 F C925 0.1 F C926 0.1 F C927 0.1 F C928 0.1 F C960 10 16V

Q908 DTB113EK Q909 DTB113EK Q910 DTB113EK Q911 DTB113EK Q912 DTB113EK Q913 DTB113EK Q914 DTB113EK

R922 180 R923 R924 180 R925 180 R926 R927 180 R928 180 R929 R930 180 R931 180 R932 R933 180 R934 180 R935 R936 180 R937 180 R938 R939 180 R940 180 R941 R942 180

Q908-914 SEGMENT DRIVER

D917 LA-301VL D918 LA-301VL D919 LA-301VL D920 LA-301VL D921 LA-301VL D922 LA-301VL D923 LA-301VL

EDIT PGM

C930 0.1 F C931 0.1 F C932 0.1 F C933 0.1 F C934 0.1 F C935 0.1 F C936 0.1 F C937 0.1 F C961 10 16V

D925 LA-301VL D926 LA-301VL D927 LA-301VL

Q916 DTB113EK Q917 DTB113EK Q918 DTB113EK Q919 DTB113EK Q920 DTB113EK Q921 DTB113EK Q922 DTB113EK Q923 DTB113EK

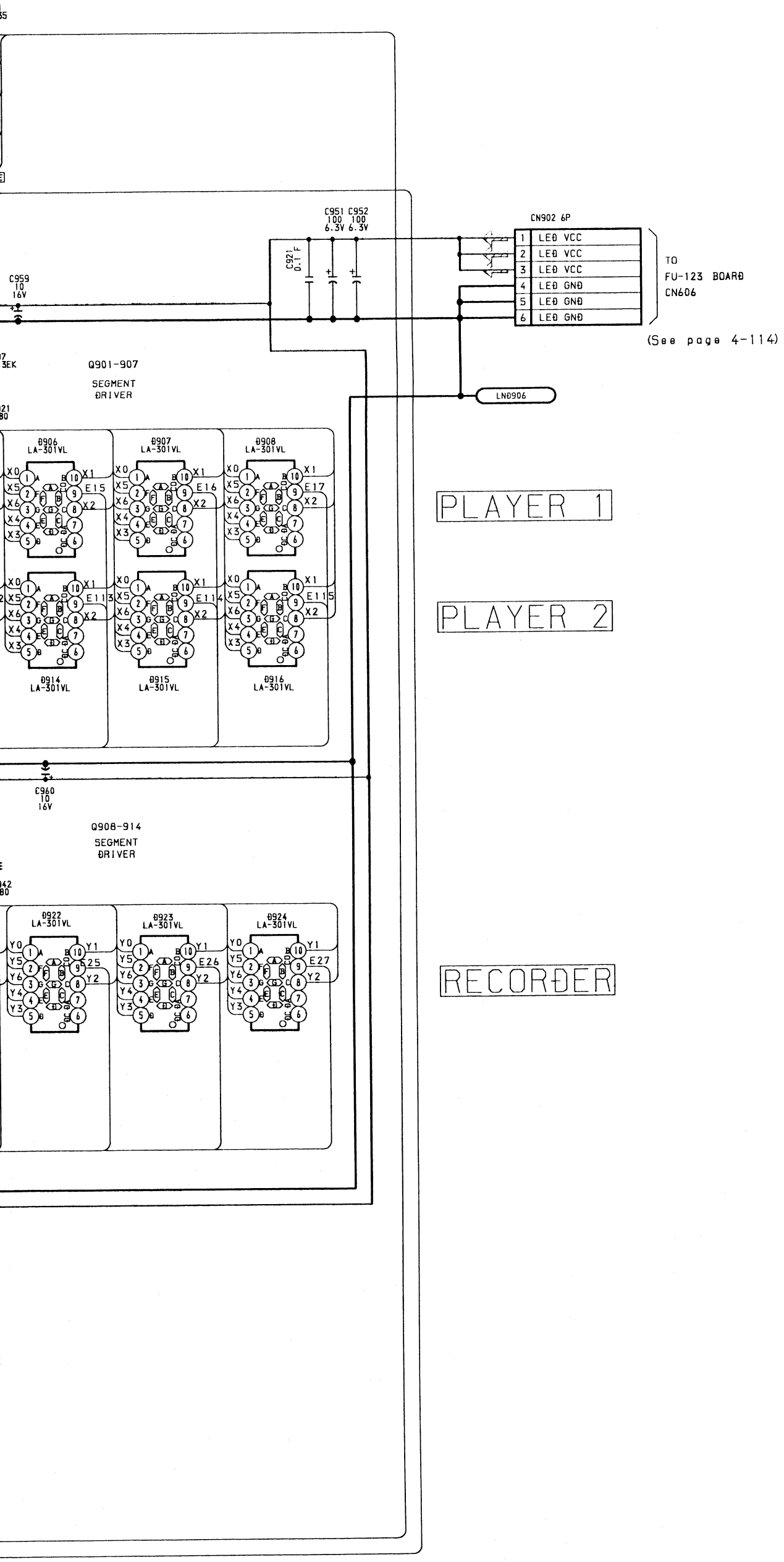
R948 180 R949 180 R950 R951 180 R952 R953 180 R954 180 R955 180 R956 R957 180 R958 R959 180 R960 180 R961 180 R962 R963 180 R964 180 R965 R966 180 R967 R968 180 R969 180 R970 180 R971 R972 180 R973 180 R974 R975 180 R989 180 R990 R991 180 R992 180 R993 R994 180

D961 CL-140SB D962 CL-140SB D963 CL-140SB D964 CL-140SB D965 CL-140SB D966 CL-140SB D967 CL-140SB D968 CL-140SB D969 CL-140SB D970 CL-140SB D971 CL-140SB D972 CL-140SB D973 CL-140SB D974 CL-140SB D975 CL-140SB D976 CL-140SB D977 CL-140SB D978 CL-140SB D979 CL-140SB D980 CL-140SB D981 CL-140SB D982 CL-140SB

SERVO R | SCREEN OFF | SERVO R | SCREEN ON | SCREEN MENU | SCREEN MENU | IN R | OUT R | SERVO P1 | SERVO P2 | SERVO P1 | SERVO P2 | AUDIO A P1 | AUDIO B P1 | AUDIO A P2 | AUDIO B P2 | AUDIO A AUX1 | AUDIO B AUX2 | IN P1 | IN P2 | OUT P1 | OUT P2

Q915-923 LED SWITCH

17 | 18 | 19 | 20 | 21 | 22





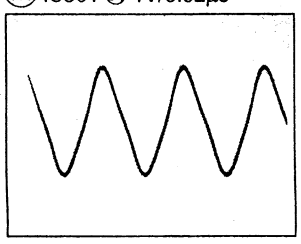

DISPLAY

## CP-64 (MASTER CPU) SCHEMATIC DIAGRAM

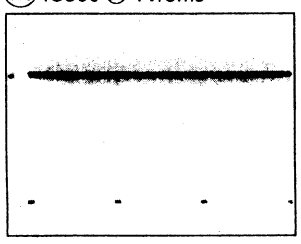
– Ref No. CP-64 BOARD : 2,000 Seriese –

CP-64 board

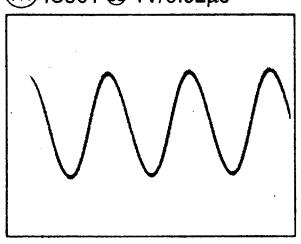
(110) IC501 (34) 1V/0.02µs



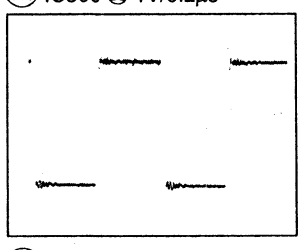
(116) IC500 (63) 1V/5ms



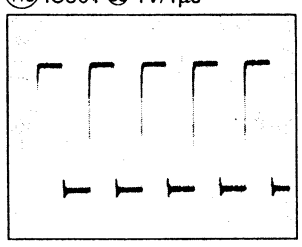
(111) IC501 (35) 1V/0.02µs



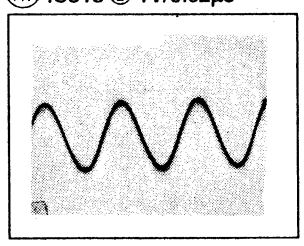
(116) IC500 (63) 1V/0.2µs



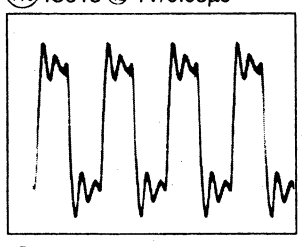
(112) IC501 (39) 1V/1µs



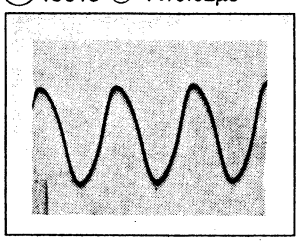
(117) IC518 (2) 1V/0.02µs



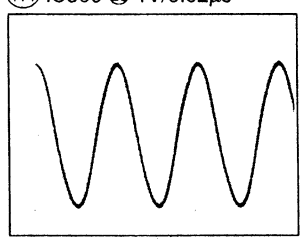
(113) IC518 (42) 1V/0.05µs



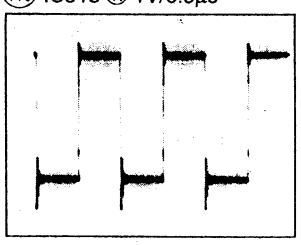
(118) IC518 (3) 1V/0.02µs



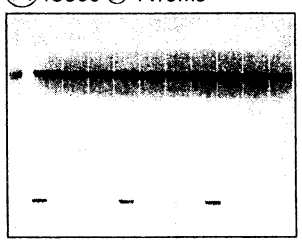
(114) IC500 (29) 1V/0.02µs



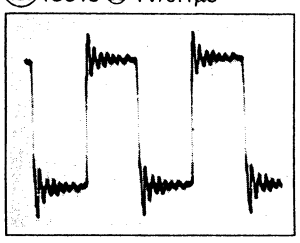
(119) IC518 (41) 1V/0.5µs



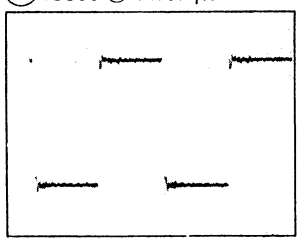
(115) IC500 (67) 1V/5ms



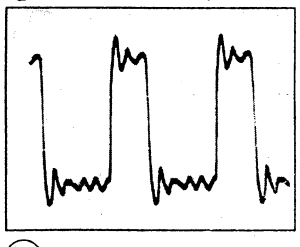
(120) IC518 (39) 1V/0.1µs



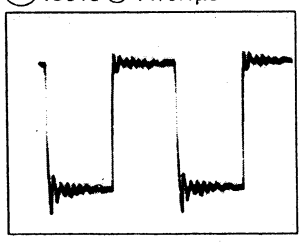
(115) IC500 (67) 1V/0.2µs

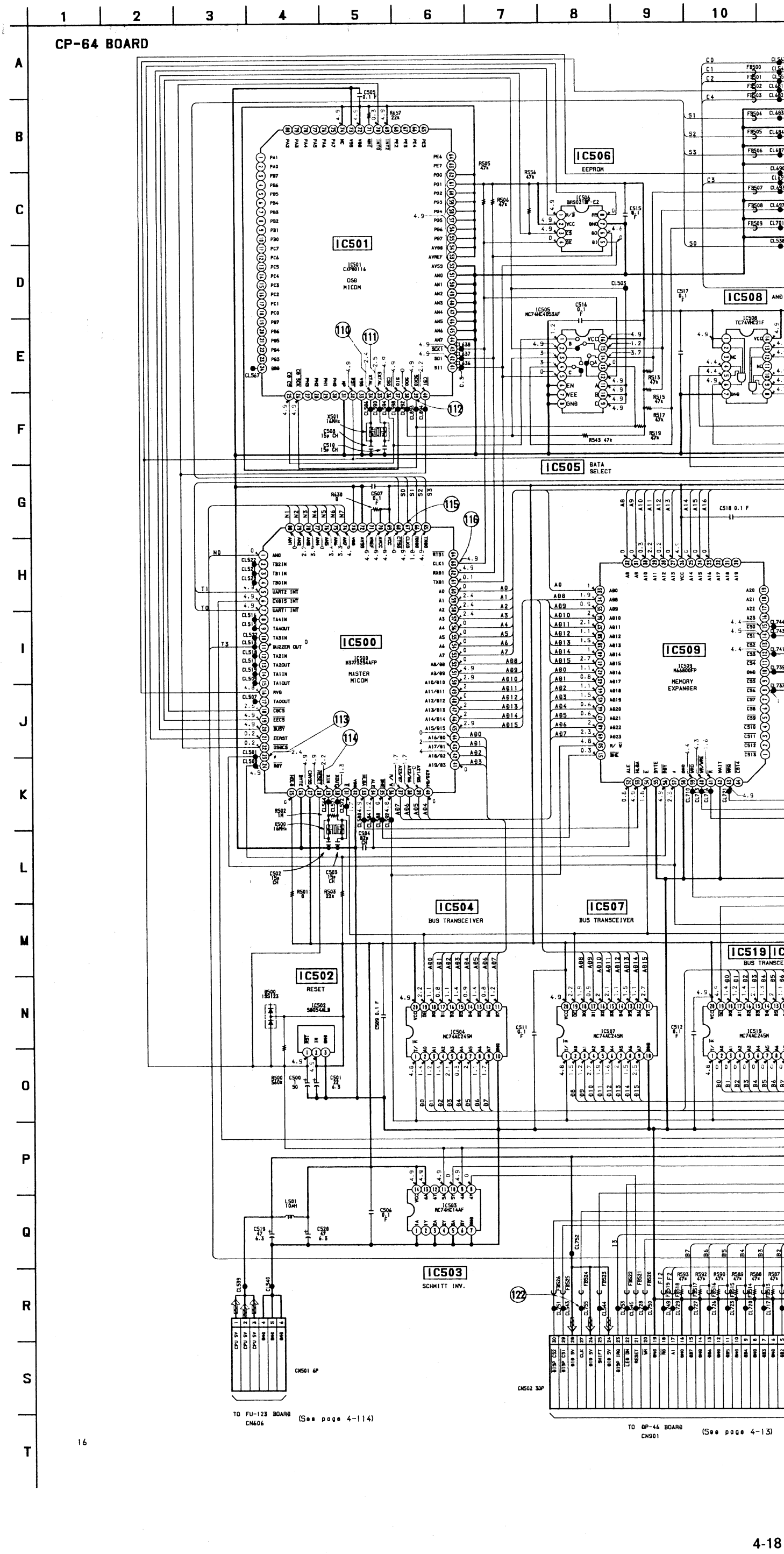


(121) IC518 (75) 1V/0.05µs



(122) IC518 (44) 1V/0.1µs








MASTER CPU

CN500 21P

TO
8V-19 BOARD
CN701

(See page 4-111)

IC508 AND GATE

IC521
IC522
IC523
IC524
GATE

Q501
POWER
SWITCH

Q500
POWER
FAIL
DETECT

IC600
UART

IC601
UART
SELECT

IC602
UART

IC513
RAM

IC517
ADDRESS
DECODER

IC516
OR/GATE

IC515
DELAY

IC518
CPO/PTC/
PIU/ICU

IC512
RAM

IC514
INV.

IC519 IC520
BUS TRANSCEIVER

IC511
CHIP
SELECT

IC510
ROM

CN503 28P

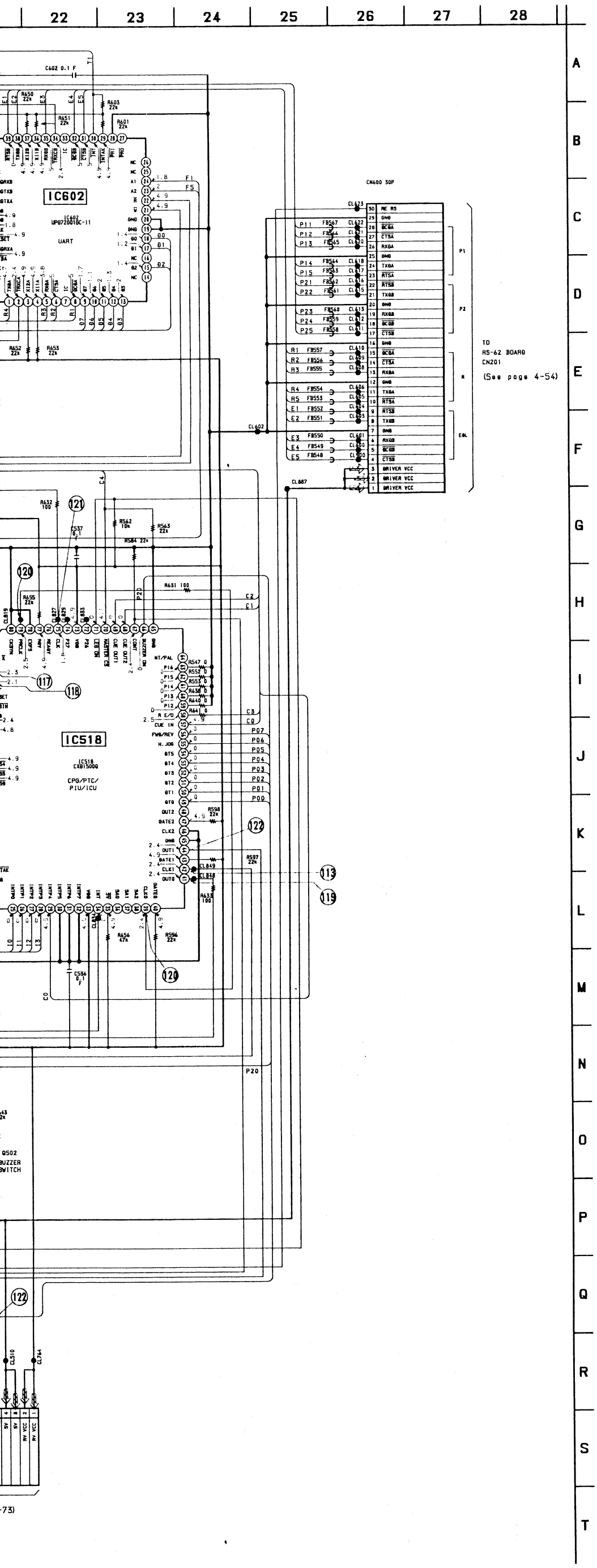
TO KS-15 BOARD
CN102

(See page 4-73)

CN504 28P

TO KS-15 BOARD
CN101

(See page 4-73)


22
23
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27
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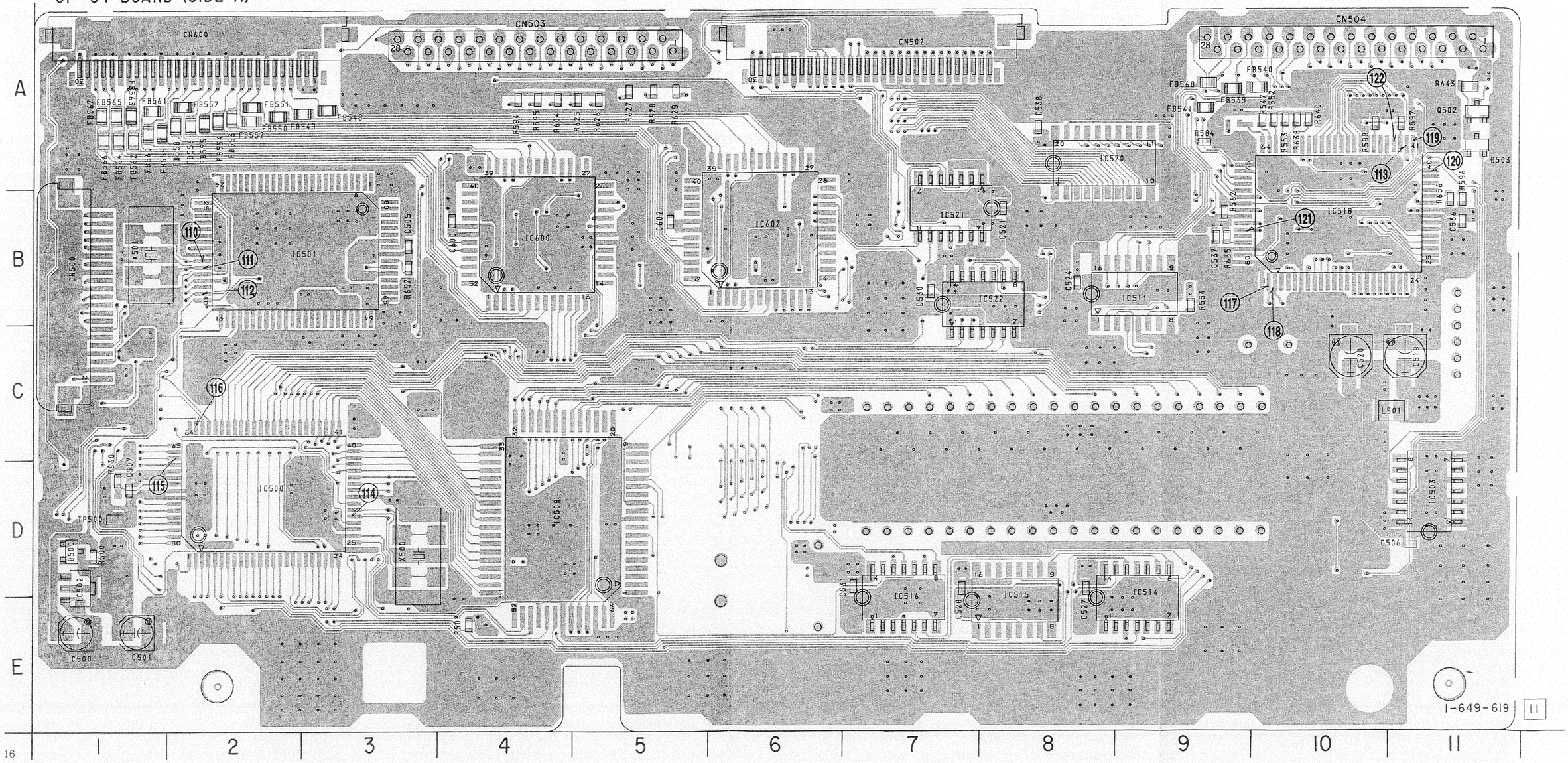
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
IC602
UART
IC602
UPD720016C-11
IC518
CPG/PTC/
PIU/ICU
IC518
CXD1500Q
CN600 30P
TO
RS-62 BOARD
CN201
(See page 4-54)
C602 0.1 F
R650 22k
R651 22k
R603 22k
R601 22k
R652 22k
R653 22k
R632 100
R562 10k
R563 22k
R584 22k
C537 0.1 F
R631 100
R655 22k
R547 0
R552 0
R553 0
R638 0
R640 0
R644 0
R598 22k
R597 22k
R633 100
R654 47k
R596 22k
C556 0.1 F
CL602
CL887
CL510
CL764
P20
C0
C1
C2
C3
P1
P2
P00
P01
P02
P03
P04
P05
P06
P07
EOL
Q502
BUZZER
SWITCH
(73)

## CP-64 (MASTER CPU) PRINTED WIRING BOARD

– Ref No. CP-64 BOARD : 2,000 Seriese –

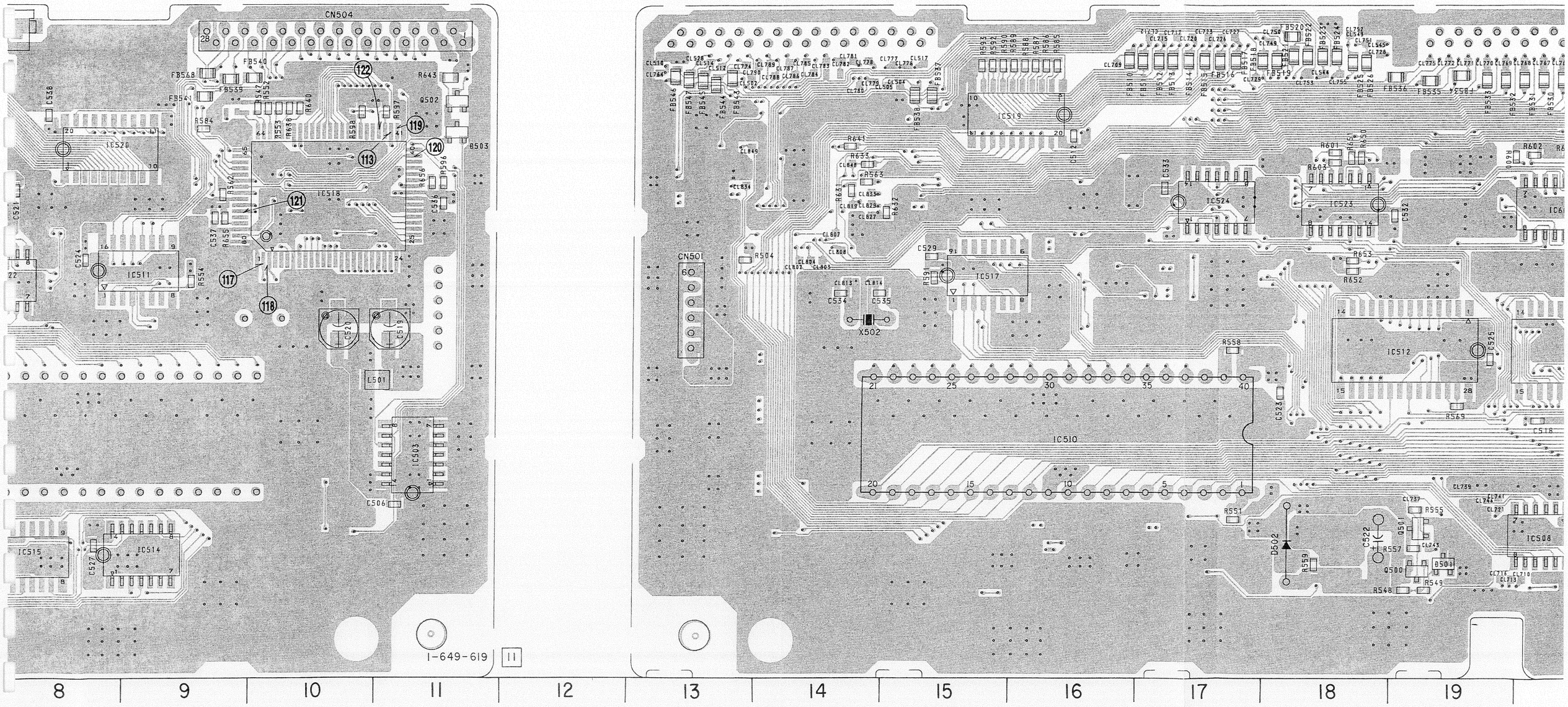
CP-64 BOARD (SIDE A)

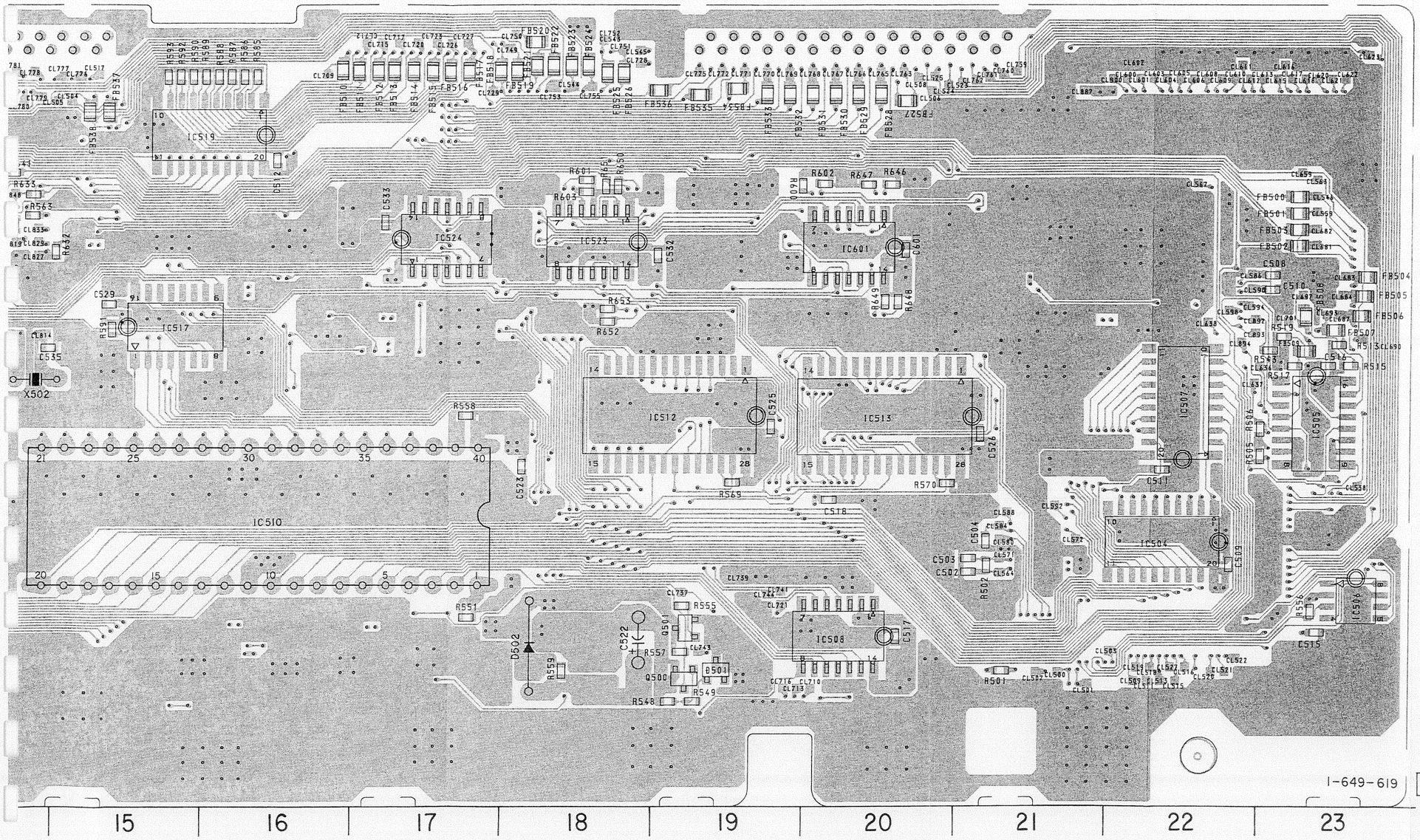





VE-V13317 / Druck 27

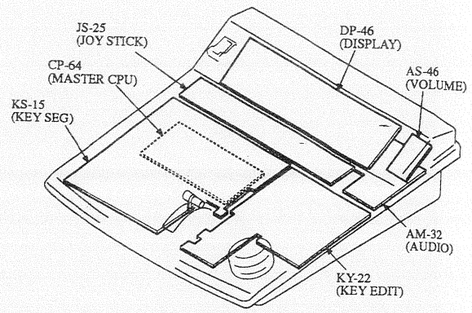
CP-64 BOARD (SIDE B)






**CP-64 BOARD**

| | |
|---|---|
| CN500 | B-1 |
| CN501 | B-13 |
| CN502 | A-7 |
| CN503 | A-4 |
| CN504 | A-10 |
| CN600 | A-2 |
| | |
| D500 | D-1 |
| D501 | E-19 |
| D502 | D-18 |
| D503 | A-11 |
| | |
| IC500 | D-2 |
| IC501 | B-2 |
| IC502 | D-1 |
| IC503 | D-11 |
| IC504 | D-22 |
| IC505 | C-23 |
| IC506 | D-23 |
| IC507 | C-22 |
| IC508 | D-20 |
| IC509 | D-4 |
| IC510 | D-16 |
| IC511 | B-9 |
| IC512 | C-19 |
| IC513 | C-20 |
| IC514 | E-9 |
| IC515 | E-8 |
| IC516 | E-7 |
| IC517 | B-15 |
| IC518 | B-10 |
| IC519 | A-15 |
| IC520 | A-8 |
| IC521 | B-7 |
| IC522 | B-8 |
| IC523 | B-18 |
| IC524 | B-17 |
| IC600 | B-4 |
| IC601 | B-20 |
| IC602 | B-6 |
| | |
| Q500 | E-19 |
| Q501 | D-19 |
| Q502 | A-11 |

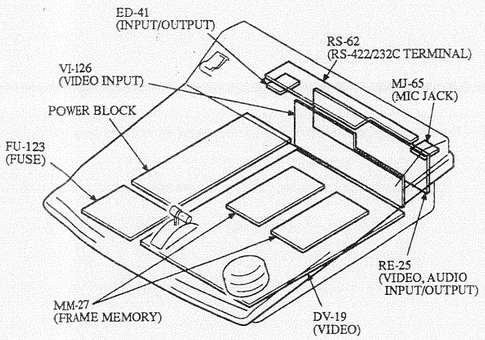


## MM-27 (FRAME MEMORY) PRINTED WIRING BOARD

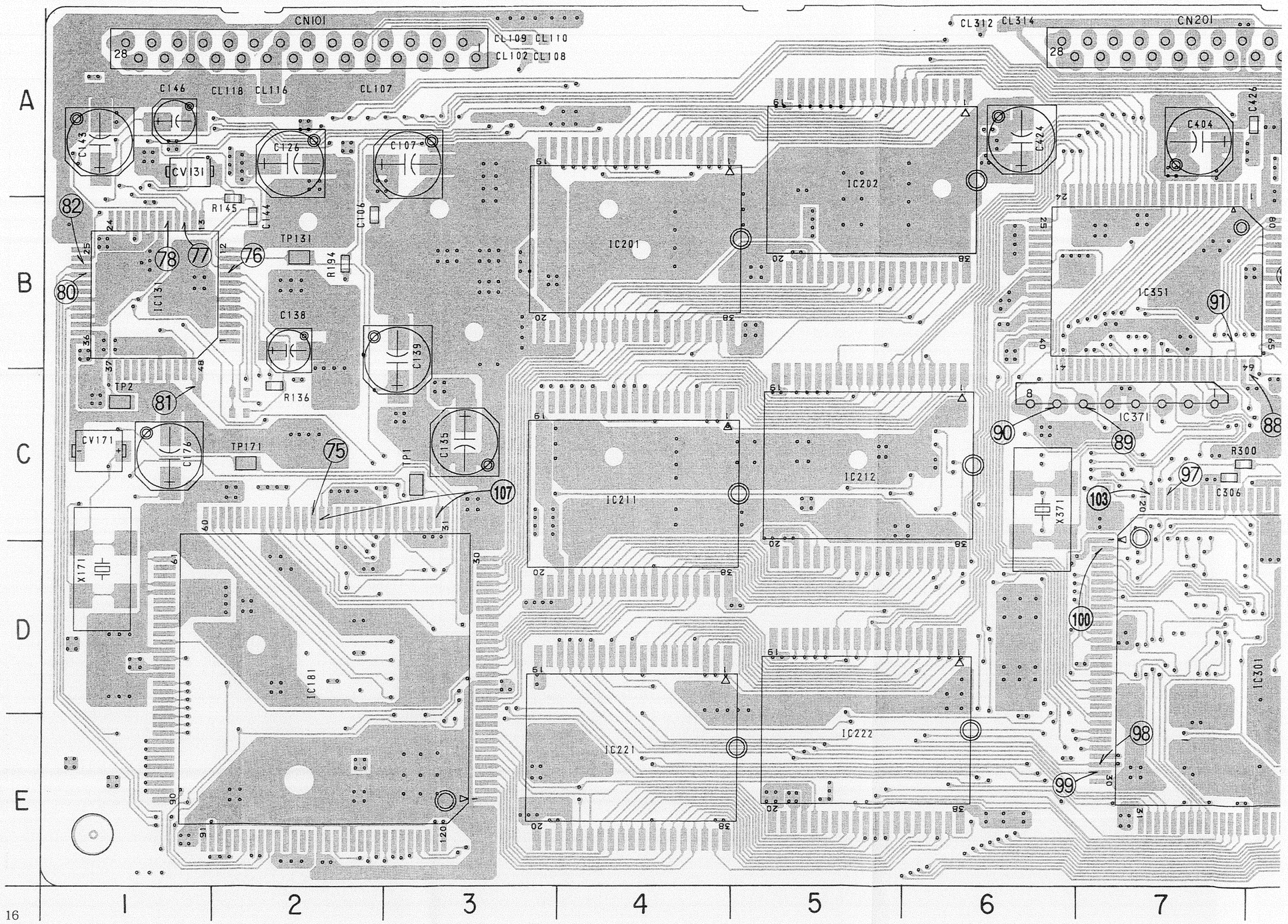
– Ref No. MM-27 BOARD : 5,000 Seriese –

### MM-27 BOARD

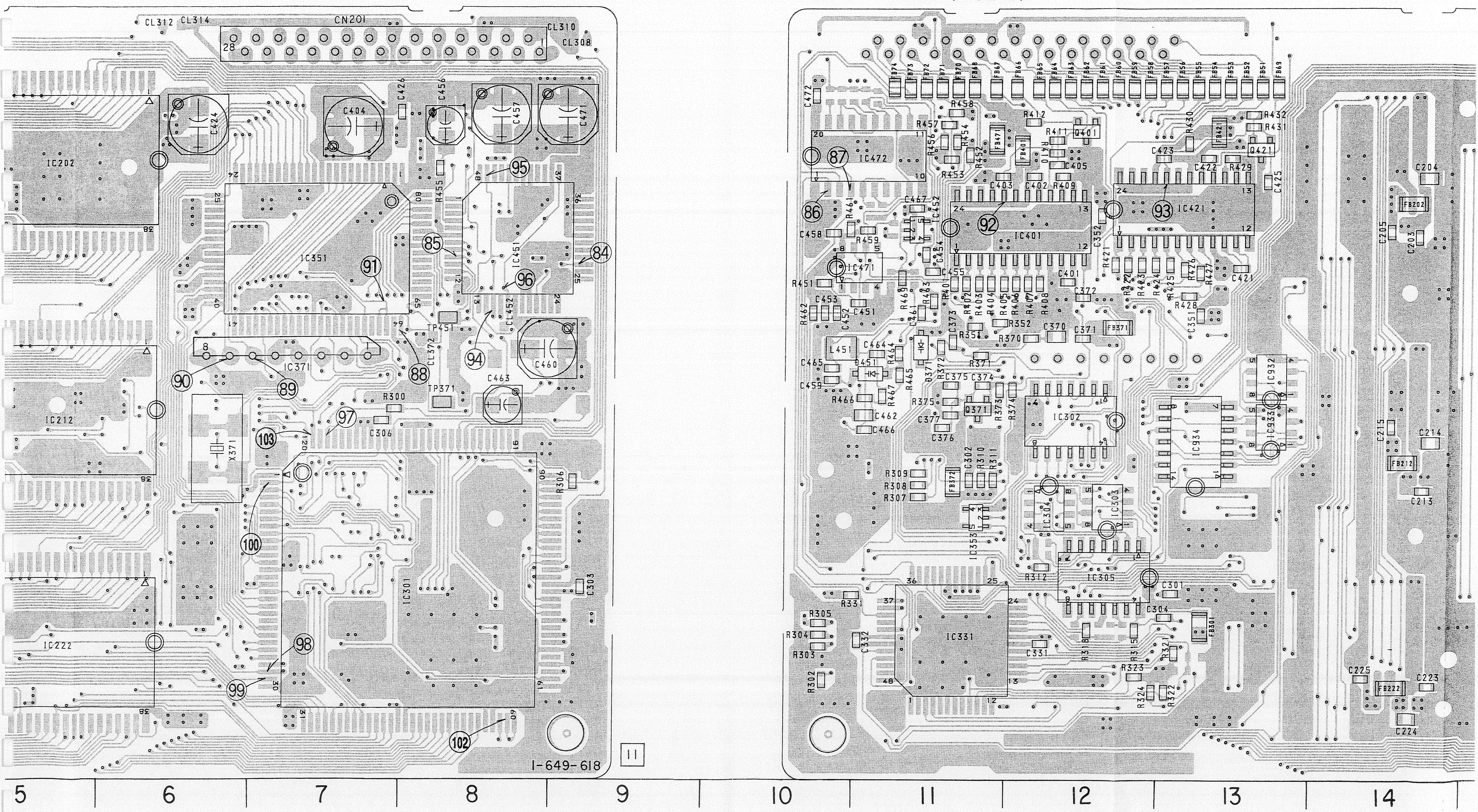
| | |
|---|---|
| CN101 | A-2 |
| CN201 | A-7 |
| D131 | A-18 |
| D171 | C-18 |
| D181 | E-16 |
| D371 | C-11 |
| D451 | C-11 |
| IC101 | B-16 |
| IC121 | B-17 |
| IC131 | B-11 |
| IC132 | C-16 |
| IC151 | C-17 |
| IC152 | D-17 |
| IC153 | D-17 |
| IC154 | E-17 |
| IC181 | D-2 |
| IC201 | B-4 |
| IC202 | A-5 |
| IC211 | C-4 |
| IC212 | C-5 |
| IC221 | E-4 |
| IC222 | E-5 |
| IC301 | D-8 |
| IC302 | C-12 |
| IC303 | D-12 |
| IC304 | D-12 |
| IC305 | D-12 |
| IC331 | E-11 |
| IC351 | B-7 |
| IC353 | D-11 |
| IC371 | C-7 |
| IC401 | B-12 |
| IC421 | B-13 |
| IC451 | B-8 |
| IC452 | B-11 |
| IC471 | B-11 |
| IC472 | A-11 |
| IC932 | C-13 |
| IC933 | C-13 |
| IC934 | C-13 |
| Q101 | A-16 |
| Q131 | B-18 |
| Q171 | C-18 |
| Q371 | C-11 |
| Q401 | A-12 |
| Q421 | A-13 |



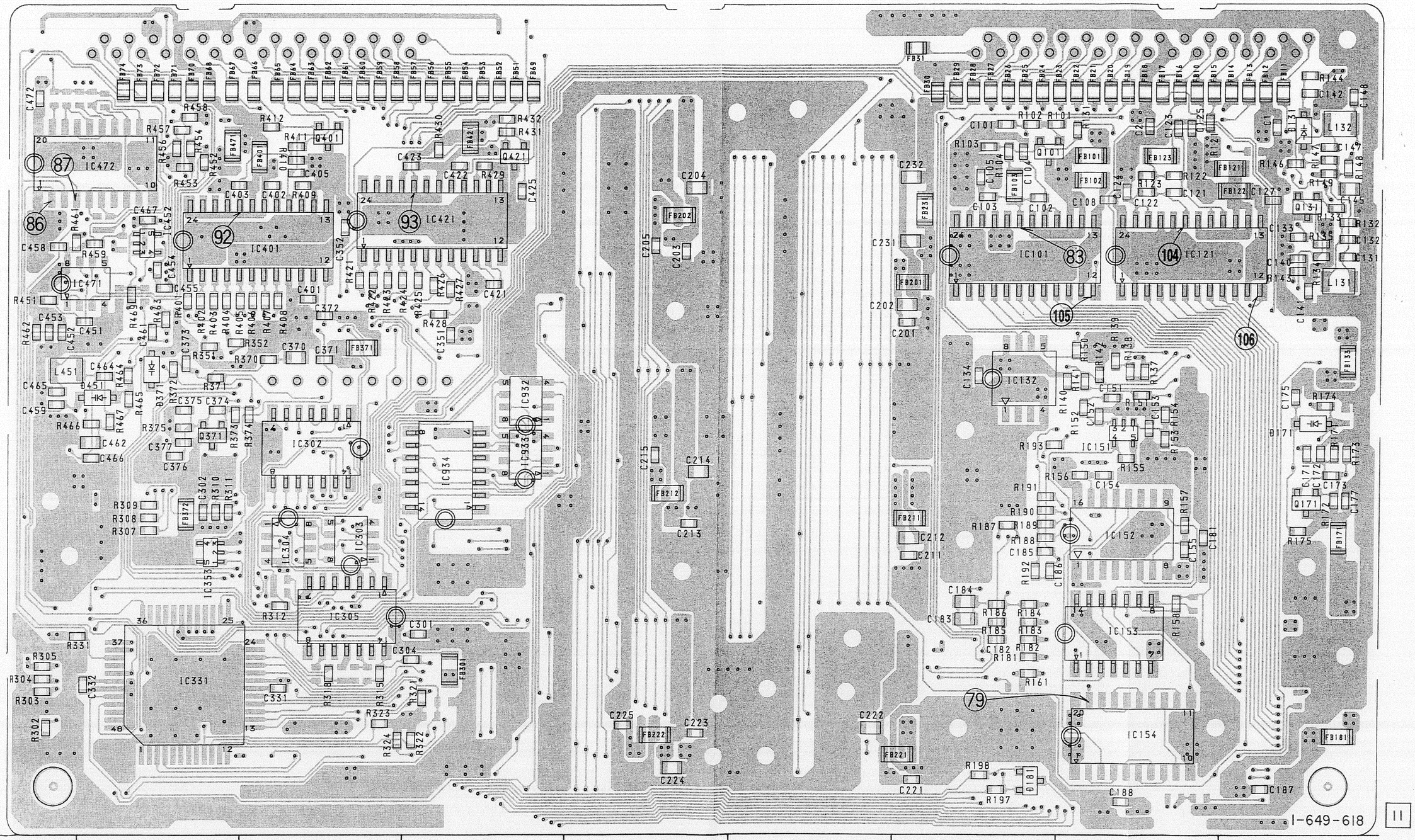

MM-27 BOARD (SIDE A)



## MM-27 BOARD (SIDE B)

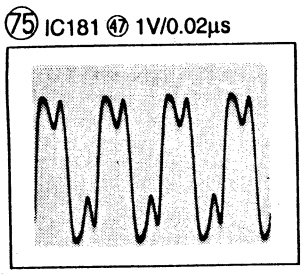


## MM-27 BOARD (SIDE B)

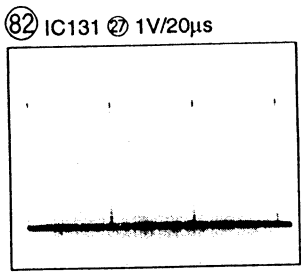


MM-27 board

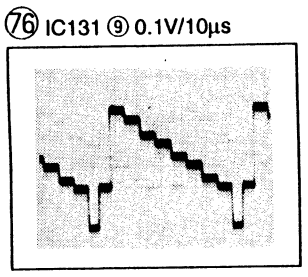
(75) IC181 (47) 1V/0.02µs



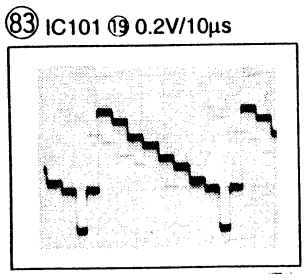
(82) IC131 (27) 1V/20µs



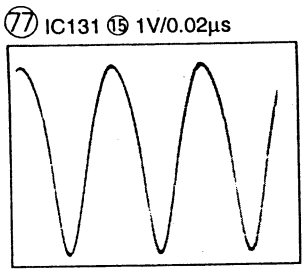
(76) IC131 (9) 0.1V/10µs



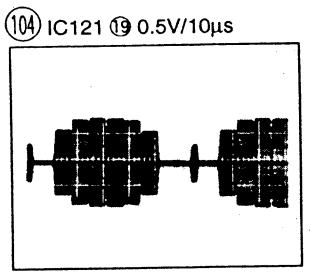
(83) IC101 (19) 0.2V/10µs



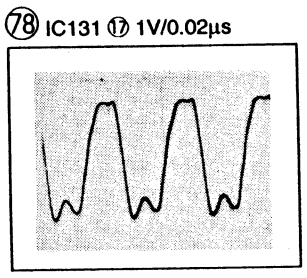
(77) IC131 (15) 1V/0.02µs



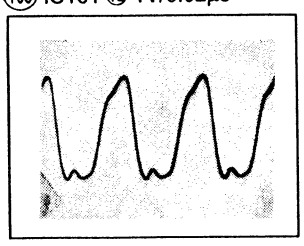
(104) IC121 (19) 0.5V/10µs



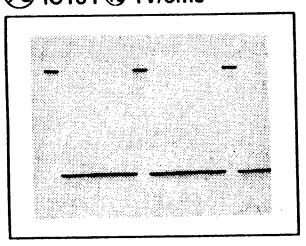
(78) IC131 (17) 1V/0.02µs



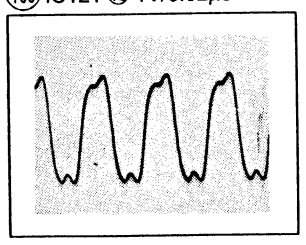
(105) IC101 (12) 1V/0.02µs



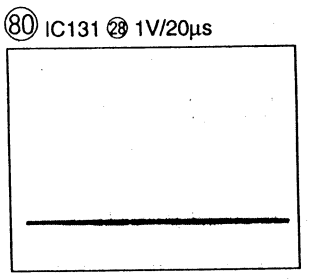
(79) IC154 (19) 1V/5ms



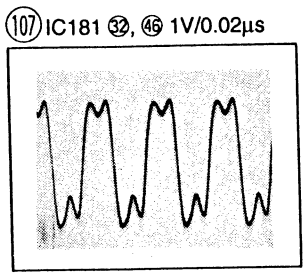
(106) IC121 (12) 1V/0.02µs



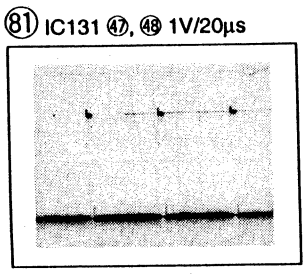
(80) IC131 (28) 1V/20µs



(107) IC181 (32), (46) 1V/0.02µs



(81) IC131 (47), (48) 1V/20µs



- **SIGNAL PATH (ANALOG)**

| VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|
| CHROMA | Y | Y/CHROMA | |
| ⇨ | ⇨⇨ | | |

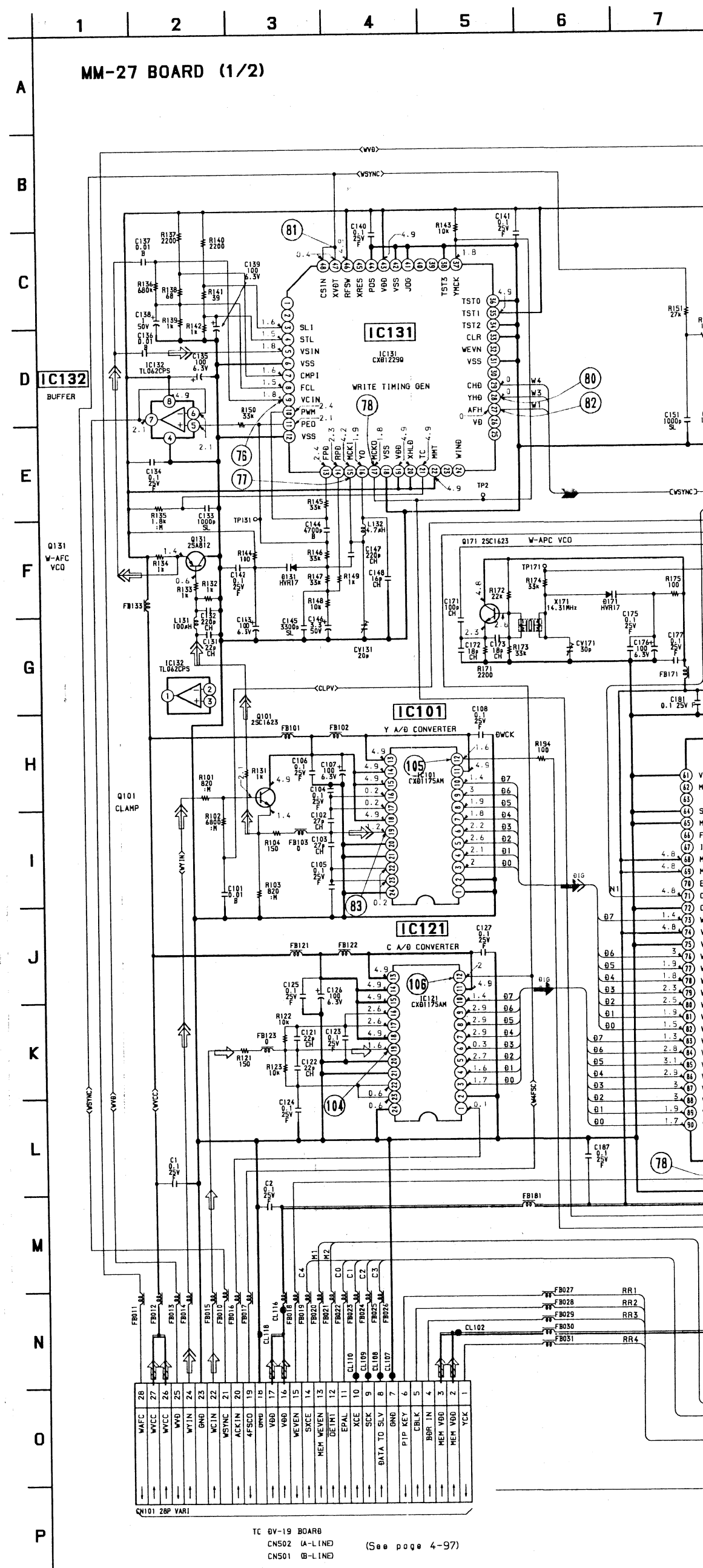
- **SIGNAL PATH (DIGITAL)**

| | VIDEO SIGNAL | | | VIDEO CONTROLL | AUDIO SIGNAL |
|---|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA | | |
| WRITE | DIG ➡ | DIG ➡➡ | | ⇨ | |
| READ | DIG ⇨ | DIG ⇨⇨ | | ➡ | |



## MM-27 (1/2) (FRAME MEMORY (1/2) ) SCHEMATIC DIAGRAM

– Ref No. MM-27 BOARD : 5,000 Seriese –



7 8 9 10 11 12 13 14 15 16 17 18 19 20

W-V SYNC SEP.

IC151 CLAMP

IC152 M.M

IC153 LATCH

IC154 LATCH

IC154 TC74HC374AF

IC151 NJM2406F

IC152 SN74LS221NS

IC153 TC74HC74AF

W-V.SYNC SEP

IC181

IC181 CXA1226Q

DIGITAL CHROMA DECODER

DIGITAL NOISE REDUCTION

FIELD #1

IC201 CXK1206M RAM

IC211 CXK1206M RAM

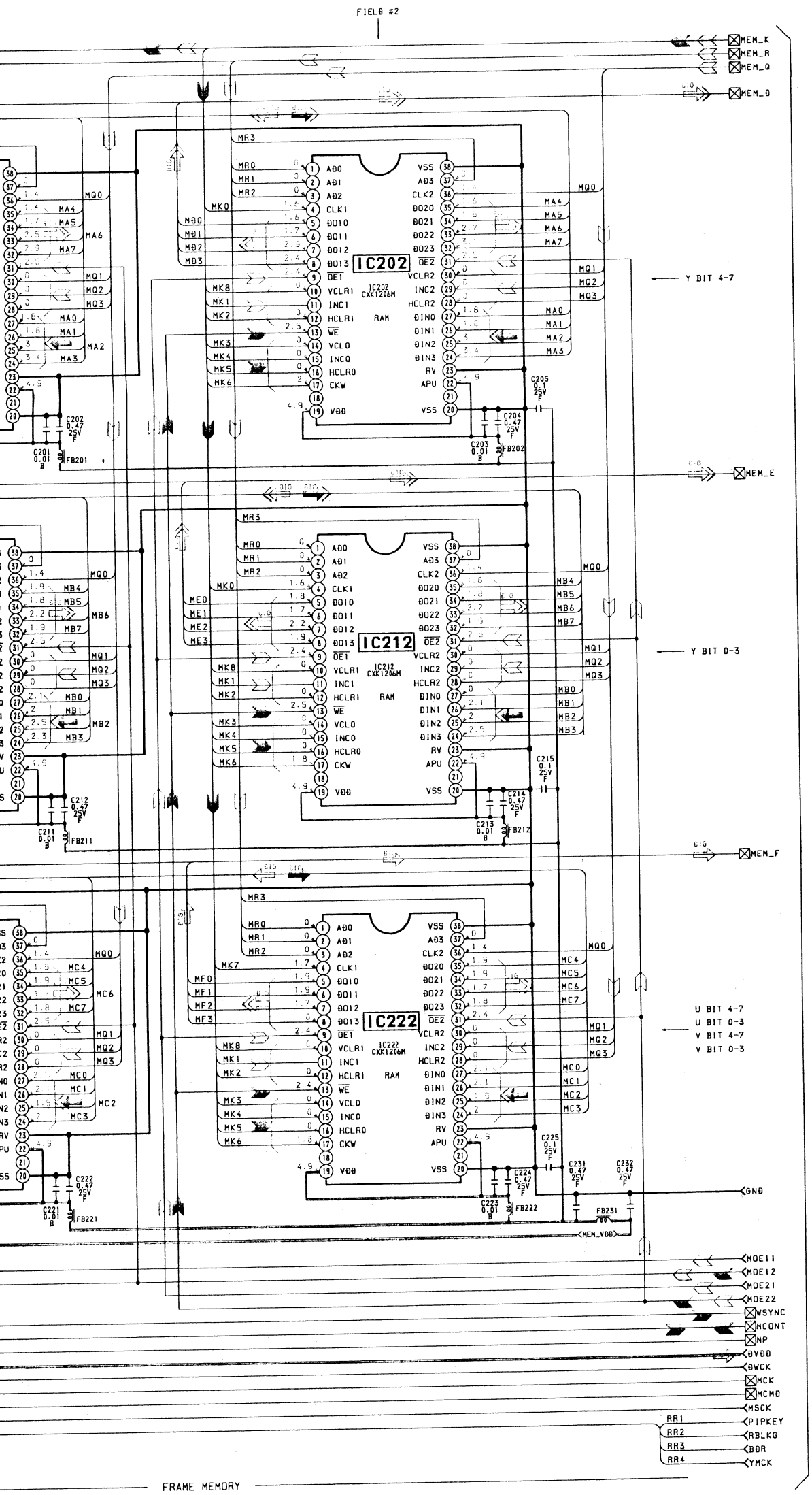
IC221 CXK1206M RAM

WRITE PROCESS

FRAME MEMORY

18 | 19 | 20 | 21 | 22 | 23 | 24 | 25

A B C D E F G H I J K L M N O P





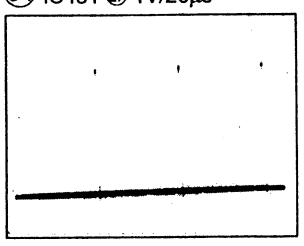

FRAME MEMORY (1/2)

## MM-27 (2/2) (FRAME MEMORY (2/2) ) SCHEMATIC DIAGRAM

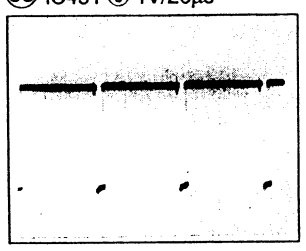
• See page 4-26 for PRINT

– Ref No. MM-27 BOARD : 5,000 Seriese –

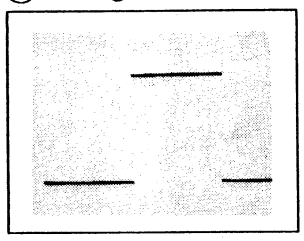
(84) IC451 (27) 1V/20µs



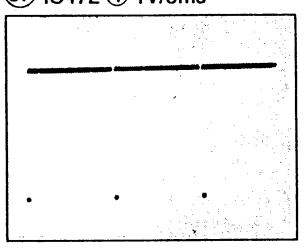
(85) IC451 (9) 1V/20µs



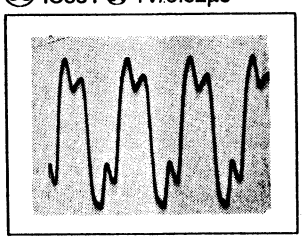
(86) IC472 (2) 1V/5ms



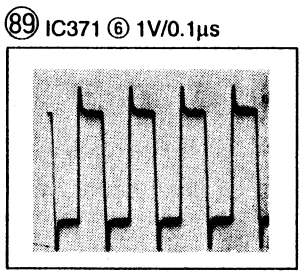
(87) IC472 (4) 1V/5ms



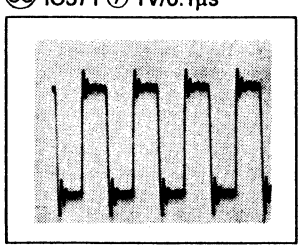
(88) IC351 (64) 1V/0.02µs



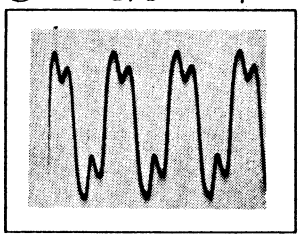
(89) IC371 (6) 1V/0.1µs



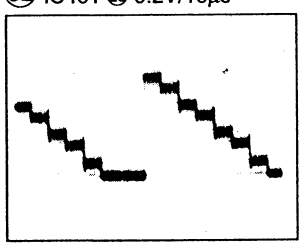
(90) IC371 (7) 1V/0.1µs



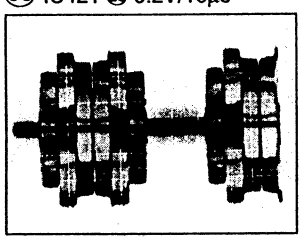
(91) IC351 (61), (62) 1V/0.02µs



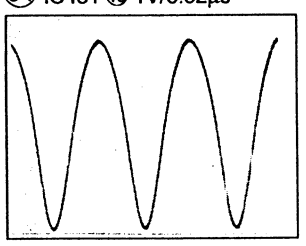
(92) IC401 (20) 0.2V/10µs



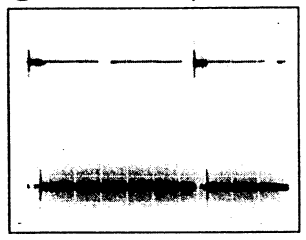
(93) IC421 (20) 0.2V/10µs



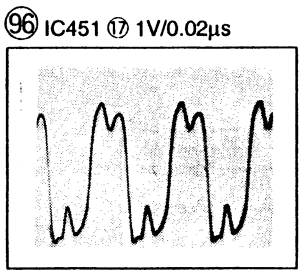
(94) IC451 (15) 1V/0.02µs



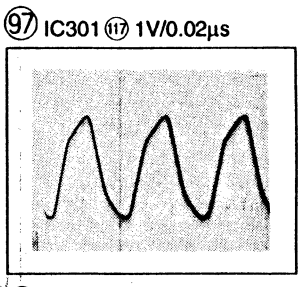
(95) IC451 (47) 1V/10µs



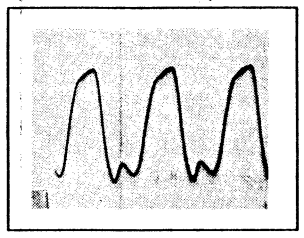
(96) IC451 (17) 1V/0.02µs



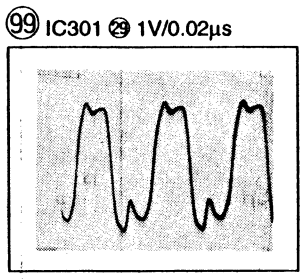
(97) IC301 (117) 1V/0.02µs



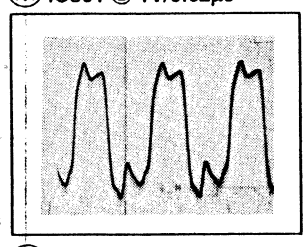
(98) IC301 (28) 1V/0.02µs



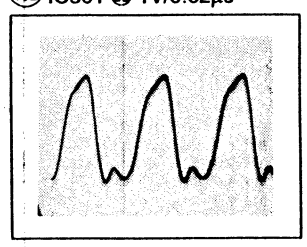
(99) IC301 (29) 1V/0.02µs



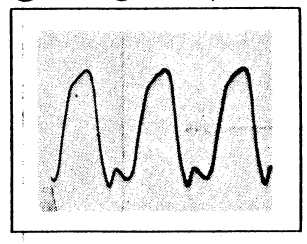
(100) IC301 (2) 1V/0.02µs

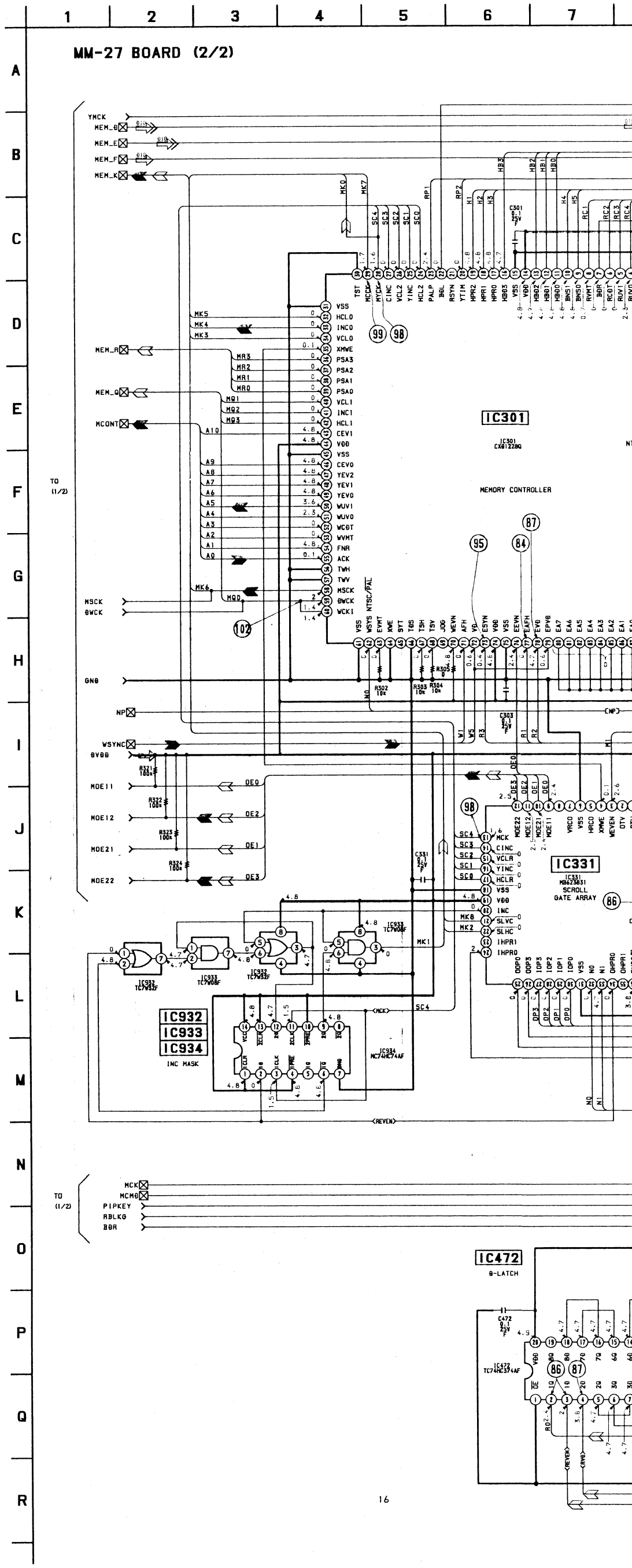


(102) IC301 (59) 1V/0.02µs



(103) IC301 (119) 1V/0.02µs








• **SIGNAL PATH (ANALOG)**

| VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|
| CHROMA | Y | Y/CHROMA | |
| ⇨ | ⇨ | | |

• **SIGNAL PATH (DIGITAL)**

| | VIDEO SIGNAL | | | VIDEO CONTROLL | AUDIO SIGNAL |
|---|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA | | |
| WRITE | | | | ⇨ | |
| READ | DIG ⇨ | DIG ⇨ | | ■ | |

7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21

IC401
Y D/A CONVERTER

IC421
C D/A CONVERTER

IC351
IC351
CXD1227Q
DIGITAL CHROMA ENCODER
SPECIAL EFFECTS GEN

IC371
PHASE COMP.

R-APC VCO

IC331
M64Z931
SCROLL
GATE ARRAY

IC302
IC303
IC304
MUTE/PULSE GEN.

IC305

IC353
GATE

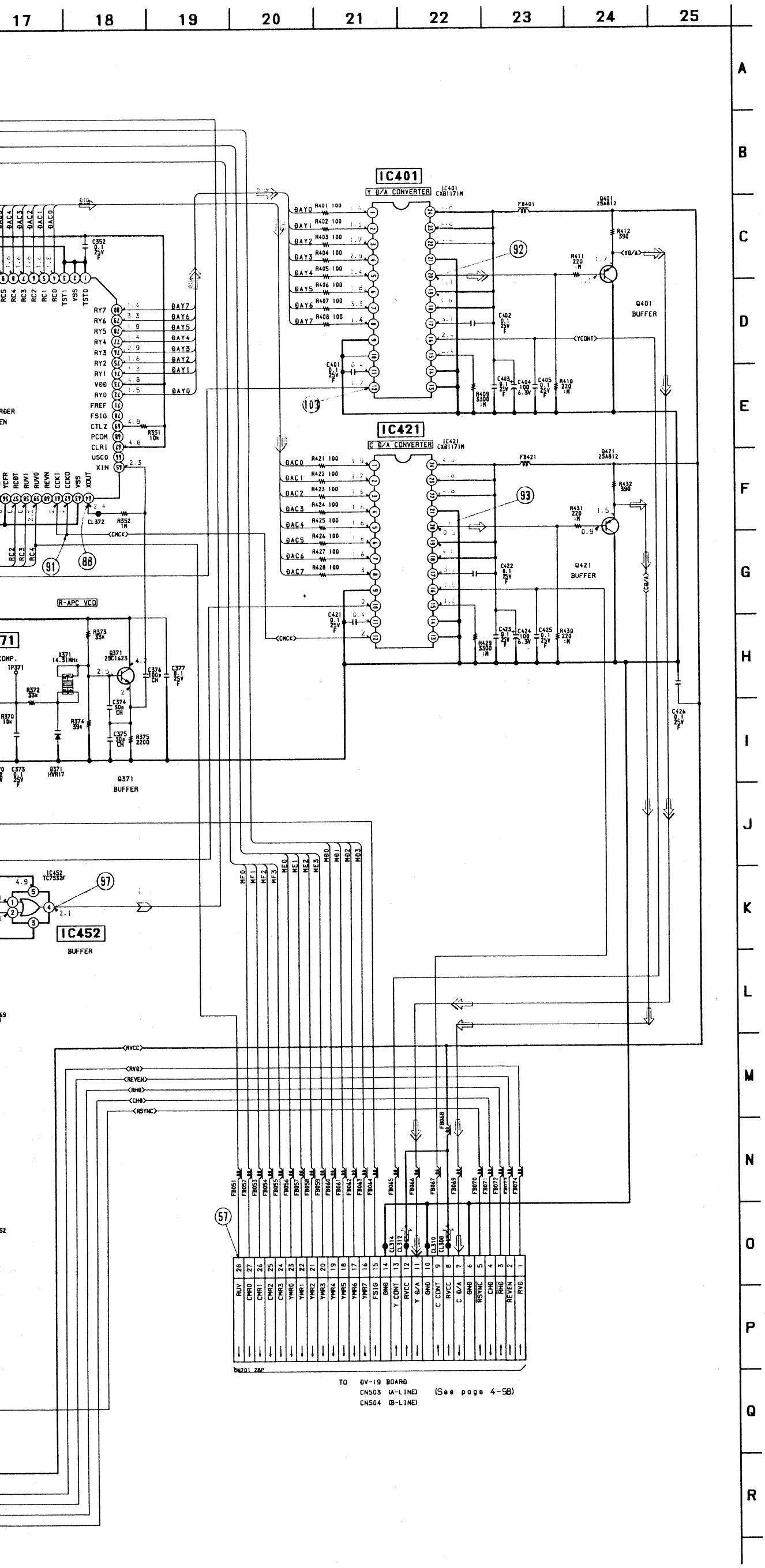
IC452
BUFFER

Q371
BUFFER

IC451
IC451
CXD1229Q
REAG TIMING GEN

IC471
INV.

TO 8V-19 BOARD
CN503 (A-LINE)
CN504 (B-LINE)


17
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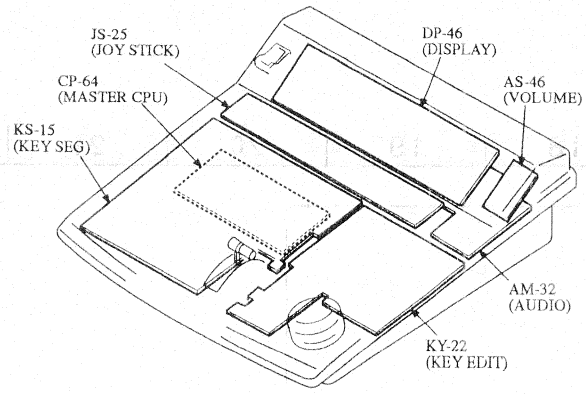
M
N
O
P
Q
R
IC401
Y D/A CONVERTER
IC401 CXD1171M
IC421
C D/A CONVERTER
IC421 CXD1171M
IC452
IC452 TC7S32F
BUFFER
Q401 BUFFER
Q421 BUFFER
Q371 BUFFER
R-APC VCO
92
93
97
103
91
88
57
(CMCK)
(YCONT)
(YD/A)
(CD/A)
(RVCC)
(RV0)
(REVEN)
(RH0)
(CH0)
(RSYNC)
TO 0V-19 BOARD
CN503 (A-LINE)
CN504 (B-LINE)
(See page 4-98)

## JS-25 BOARD

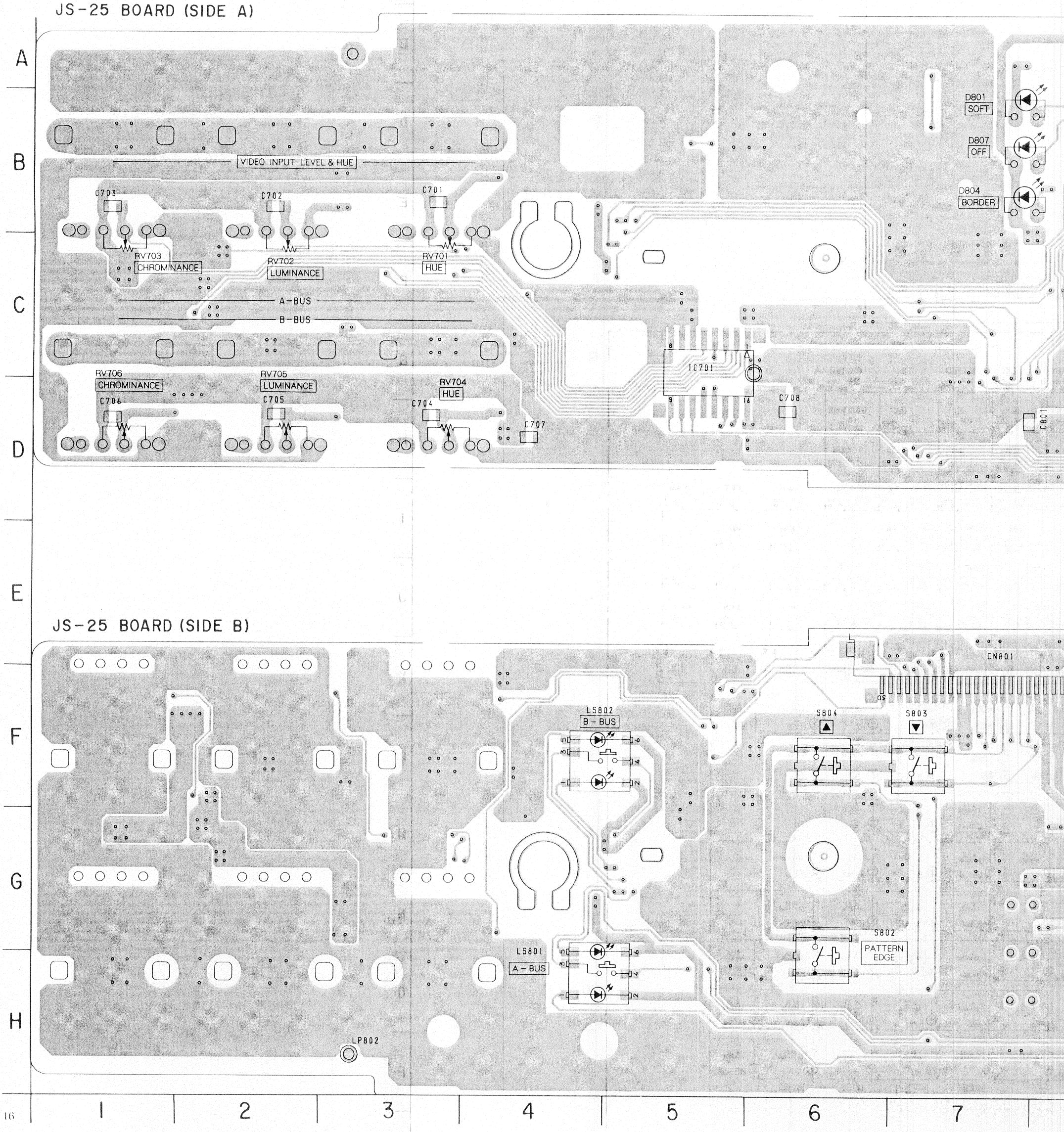
| | |
|---|---|
| CN801 | E-7 |
| D801 | B-7 |
| D803 | A-10 |
| D804 | B-7 |
| D807 | B-7 |
| D809 | A-13 |
| D810 | A-18 |
| IC701 | C-5 |
| IC801 | F-15 |



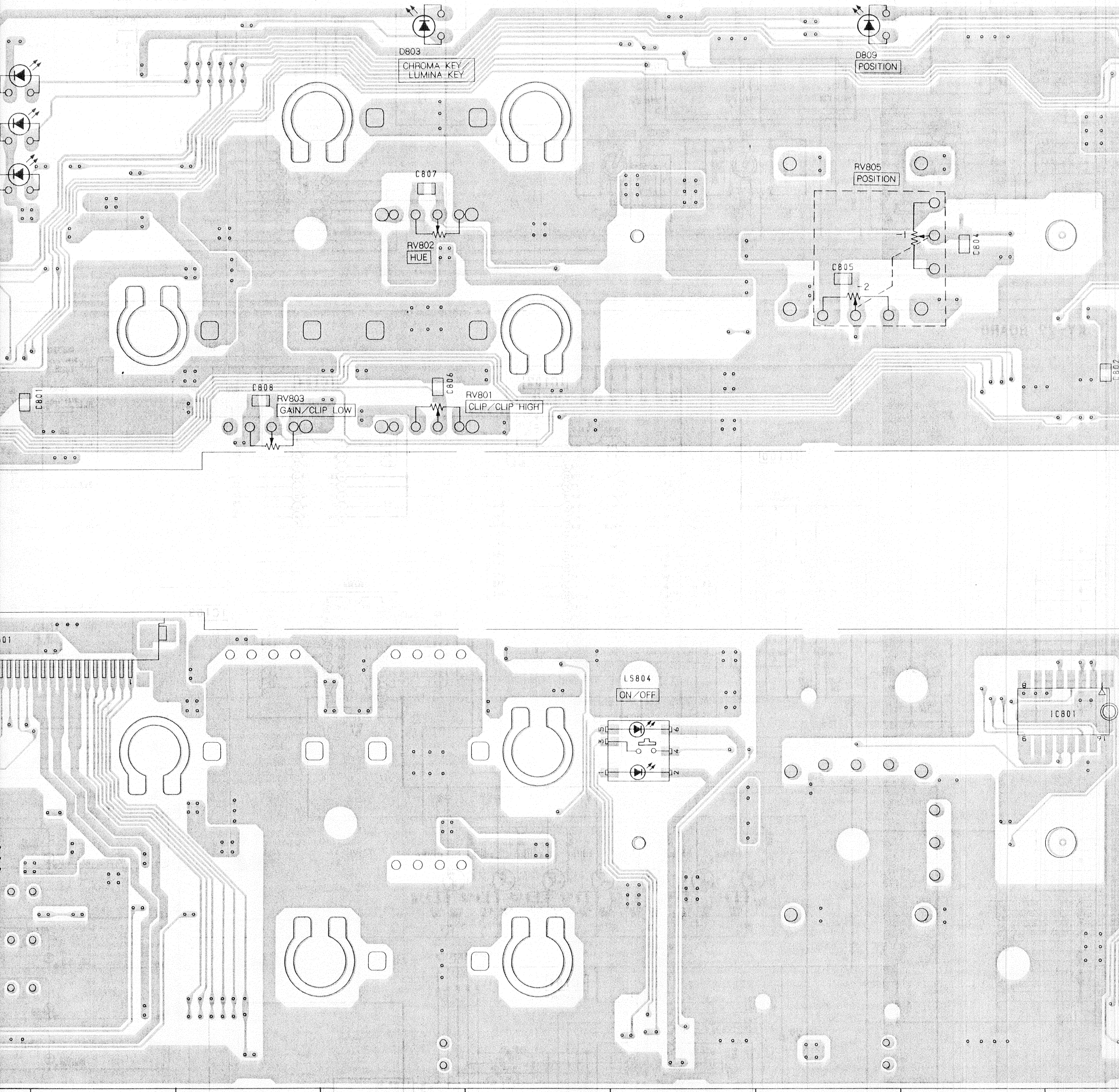

## JS-25 (JOY STICK) PRINTED WIRING BOARD

– Ref No. JS-25 BOARD : 3,000 Seriese –

JS-25 BOARD (SIDE A)




JS-25 BOARD (SIDE B)


D803
CHROMA KEY/
LUMINA KEY
D809
POSITION
C807
RV805
POSITION
RV802
HUE
C804
C805
C801
C808
RV803
GAIN/CLIP LOW
C806
RV801
CLIP/CLIP HIGH
C802
LS804
ON/OFF
IC801
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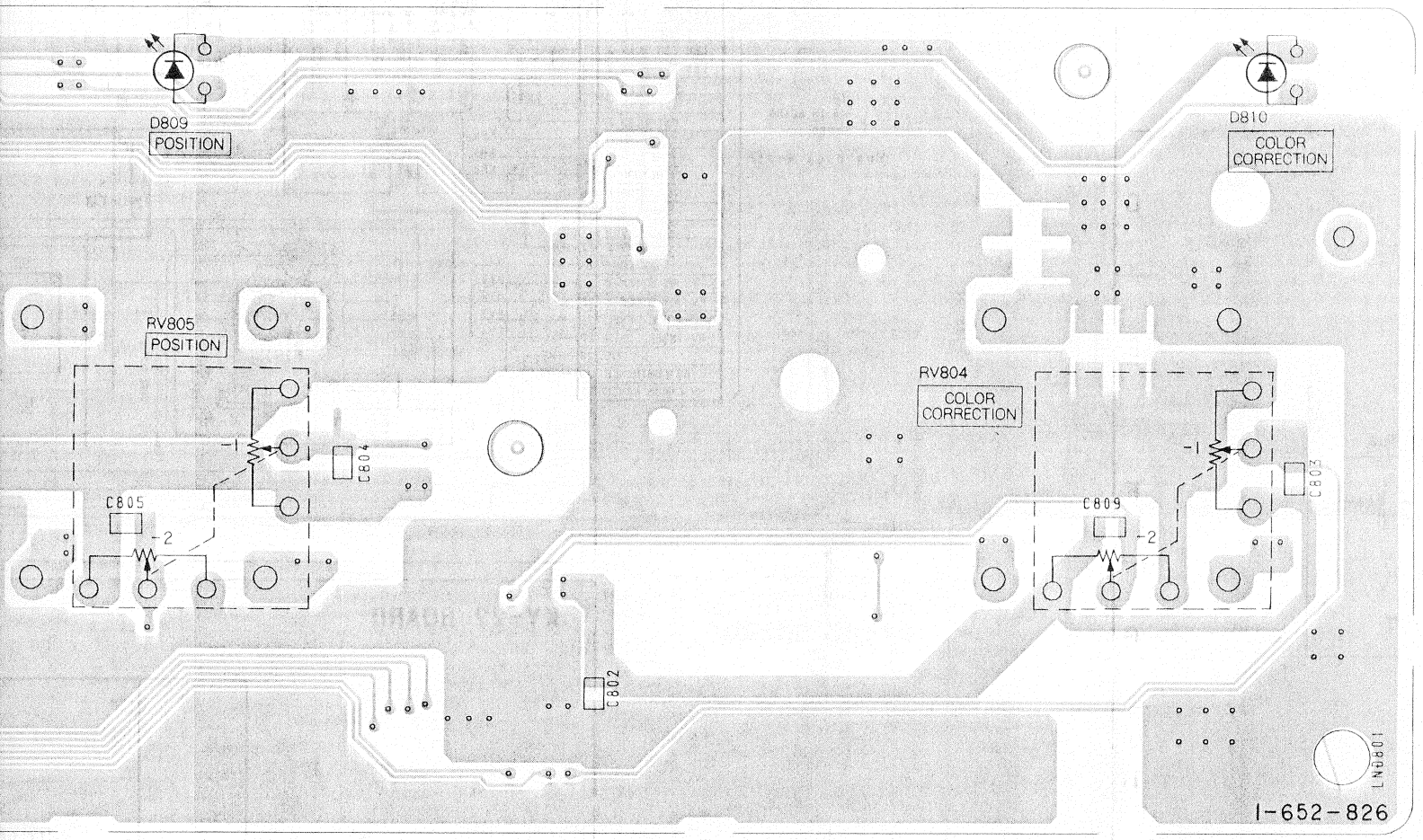
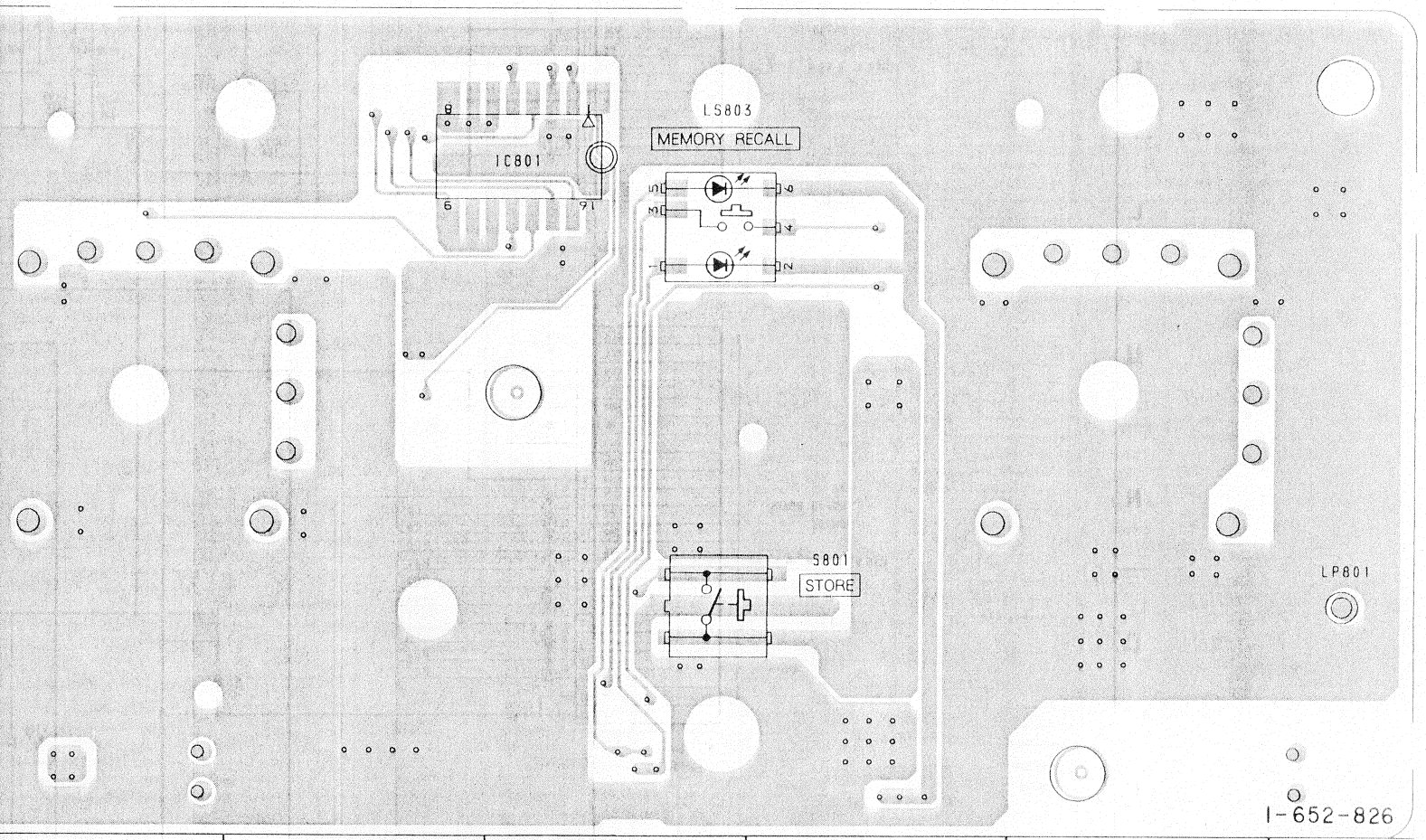
14




13 14 15 16 17 18



JOY STICK

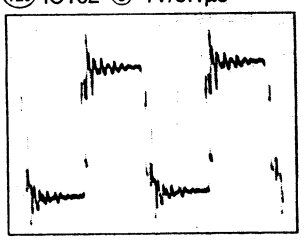
## JS-25 (JOY STICK) /KY-22 (KEY EDIT) SCHEMATIC DIAGRAM

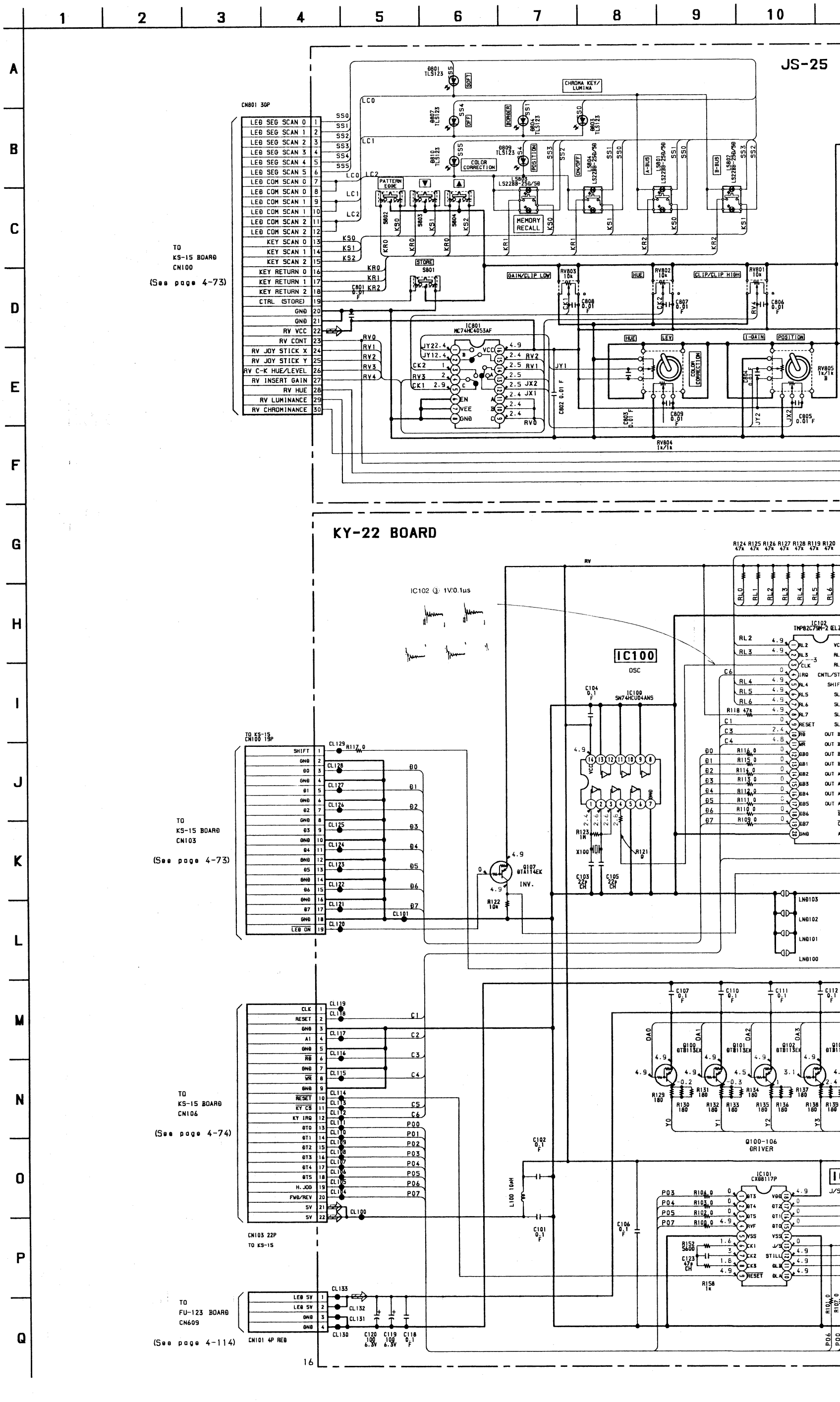
• See page 4-39 for JS-25 PRINTED WIRING BOARD

– Ref No. JS-25 BOARD : 3,000/KY-22 BOARD : 8,000 Seriese –

KY-22 board

(126) IC102 ③ 1V/0.1µs





# JS-25 BOARD

VIDEO INPUT LEVEL & HUE

RV701 10k B HUE
LUMINANCE
CHROMINANCE
RV702 10k
RV703 10k
C701 0.01 F
C702 0.01 F
C703 0.01 F
— A-BUS
RV704 10k
HUE
LUMINANCE
CHROMINANCE
RV705 10k
RV706 10k
C704 0.01 F
C705 0.01 F
C706 0.01 F
— B-BUS
C707 0.01 F
C708 0.01 F
IC701
SELECT SWITCH.
POSITION
LN0801
RV805 1k/1k B
C806 0.01 F
C805 0.01 F
JX2

IC102
KEY/LED CONTROLER
IC102 TMP82C79M-2 (ELZ)
C113 0.1 F
RL1
RL0
SL2
SL1
SL0
OA0
OA1
OA2
OA3
OA4
OA5
OA6
C5
C2

IC104
DECODER
IC104 SN74HC138ANS
C117 0.1 F
REC S111
SHIFT S103
S0
S1
S2
S3
S4
S5
S6

IC103
DRIVER
IC103 TB62383P
E0
E1
E2
E3
E4
E5
E6
E7

LN0103
LN0102
LN0101
LN0100
C111 0.1 F
C112 0.1 F
C114 0.1 F
C115 0.1 F
C100 0.1 F
C116 0.1 F
Q102 BTB113EK
Q103 BTB113EK
Q104 BTB113EK
Q105 BTB113EK
Q106 BTB113EK
R135 180
R136 180
R137 180
R138 180
R139 180
R140 180
R141 180
R142 180
R143 180
R144 180
R145 180
R146 180
R159 180
R160 180
R161 180

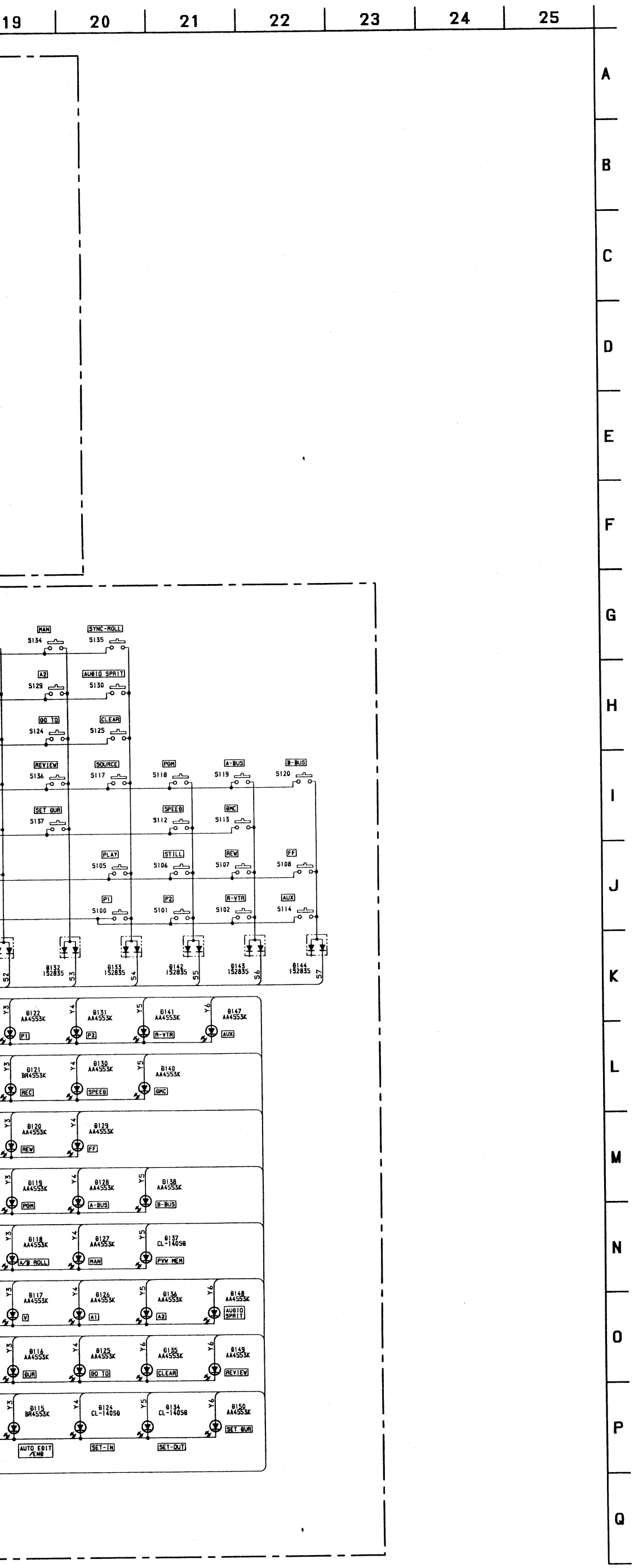
IC101
J/S ENCODER
R150 10k
R149 10k
R148 10k
R147 10k
R101 0
R102 0
R103 0
R104 0
R105 0
C122 180p CH
C121 180p CH
C108 180p CH
C109 180p CH
CL139 REG 5V
CL137 DIAL A
CL136 DIAL B
CL135 DIAL STILL
CL134 H.JOG
CL138 GND
TO J/S UNIT
CN102 6P

R151 22k
R157 22k
R153 1k
R154 1k
R155 1k
R156 1k
R126 47k
R127 47k
R128 47k
R119 47k
R120 47k
RL2
RL3
RL4
RL5
RL6

CUT EDIT S131
A-ROLL S132
A/B ROLL S133
MAN S134
SYNC-ROLL S135
ASMBL S126
V S127
A1 S128
A2 S129
AUDIO SPRIT S130
IN S121
OUT S122
DUR S123
GO TO S124
CLEAR S125
PREVIEW S115
AUTO EDIT /END S116
REVIEW S136
SOURCE S117
PGM S118
A-BUS S119
B-BUS S120
MARK IN S109
MARK OUT S110
SET DUR S137
SPEED S112
EMC S113
ALL STOP S104
PLAY S105
STILL S106
REV S107
FF S108
P1 S100
P2 S101
R-VTR S102
AUX S114

Q108 1S2835
Q114 1S2835
Q123 1S2835
Q132 1S2835
Q133 1S2835
Q142 1S2835
Q143 1S2835
Q144 1S2835

Q102 GL8EG22
Q122 AA4553K P1
Q131 AA4553K P2
Q141 AA4553K R-VTR
Q147 AA4553K AUX
Q101 GL8EG22
Q145 GL8HS22
Q121 BR4553K REC
Q130 AA4553K SPEED
Q140 AA4553K EMC
Q100 PG4553KY PLAY
Q146 AA4553K STILL
Q120 AA4553K REV
Q129 AA4553K FF
Q107 AA4553K SYNC-ROLL
Q113 AA4553K SOURCE
Q119 AA4553K PGM
Q128 AA4553K A-BUS
Q138 AA4553K B-BUS
Q112 AA4553K A-ROLL
Q118 AA4553K A/B ROLL
Q127 AA4553K MAN
Q137 CL-140S0 PVW MEM
Q105 AA4553K CUT EDIT
Q111 AA4553K ASMBL
Q117 AA4553K V
Q126 AA4553K A1
Q136 AA4553K A2
Q148 AA4553K AUDIO SPRIT
Q104 AA4553K IN
Q110 AA4553K OUT
Q116 AA4553K DUR
Q125 AA4553K GO TO
Q135 AA4553K CLEAR
Q149 AA4553K REVIEW
Q103 CL-140S0 PREVIEW
Q109 CL-140UR AUTO ASM
Q115 BR4553K AUTO EDIT /END
Q124 CL-140S0 SET-IN
Q134 CL-140S0 SET-OUT
Q150 AA4553K SET DUR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MAN
S134
SYNC-ROLL
S135
A2
S129
AUDIO SPRIT
S130
GO TO
S124
CLEAR
S125
REVIEW
S136
SOURCE
S117
PGM
S118
A-BUS
S119
B-BUS
S120
SET DUR
S137
SPEED
S112
GMC
S113
PLAY
S105
STILL
S106
REW
S107
FF
S108
P1
S100
P2
S101
R-VTR
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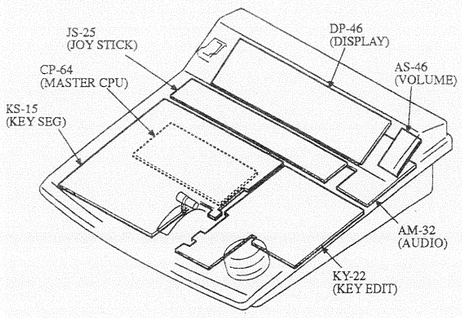
S4
S5
S6
S7
D132 152835
D133 152835
D142 152835
D143 152835
D144 152835
Y3
Y4
Y5
Y6
D122 AA4553K
P1
D131 AA4553K
P2
D141 AA4553K
R-VTR
D147 AA4553K
AUX
D121 BR4553K
REC
D130 AA4553K
SPEED
D140 AA4553K
GMC
D120 AA4553K
REW
D129 AA4553K
FF
D119 AA4553K
PGM
D128 AA4553K
A-BUS
D138 AA4553K
B-BUS
D118 AA4553K
A/B ROLL
D127 AA4553K
MAN
D137 CL-140S0
PVW MEM
D117 AA4553K
V
D126 AA4553K
A1
D136 AA4553K
A2
D148 AA4553K
AUDIO SPRIT
D116 AA4553K
DUR
D125 AA4553K
GO TO
D135 AA4553K
CLEAR
D149 AA4553K
REVIEW
D115 BR4553K
AUTO EDIT /ENB
D124 CL-140S0
SET-IN
D134 CL-140S0
SET-OUT
D150 AA4553K
SET DUR

## KY-22 (KEY EDIT) PRINTED WIRING BOARD

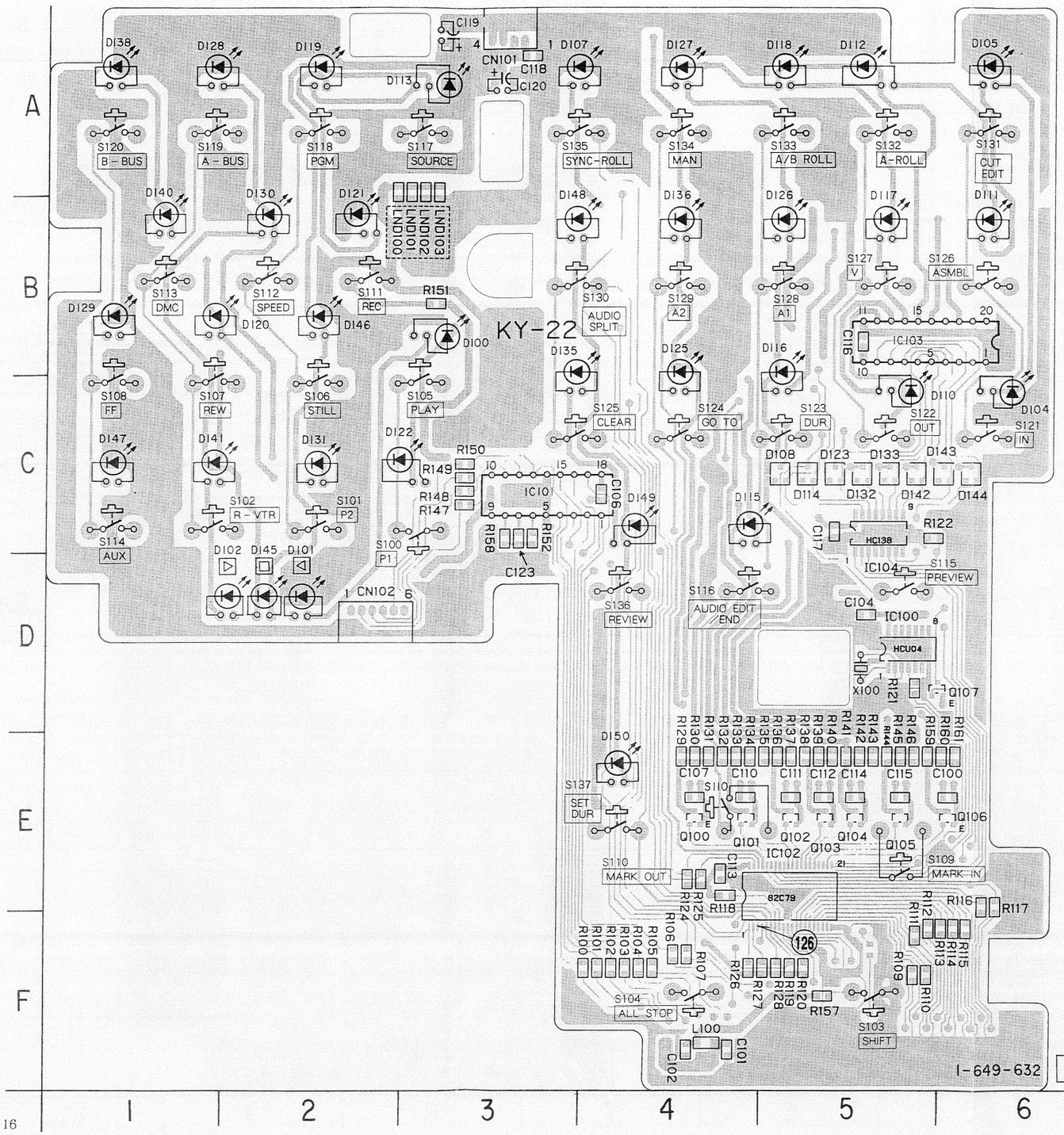
– Ref No. KY-22 BOARD : 8.000 Seriese –

### KY-22 BOARD

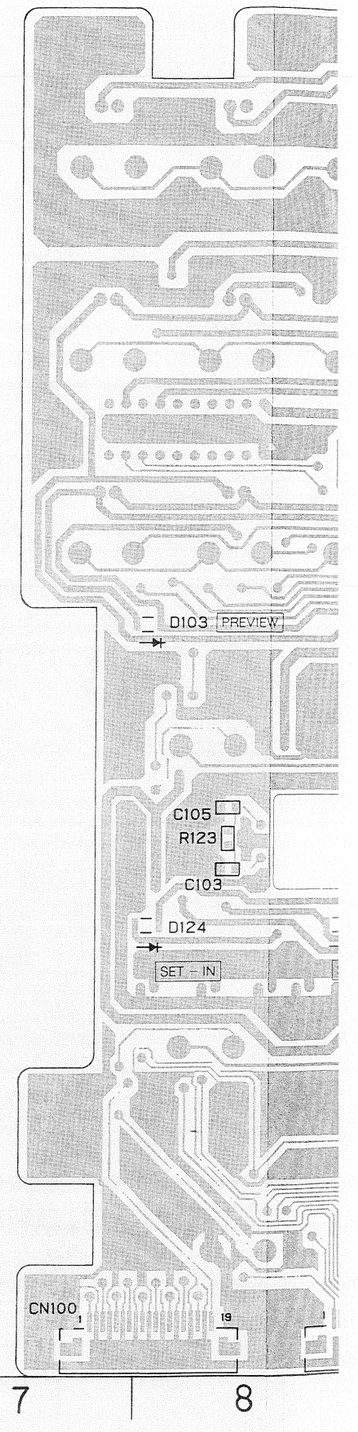
| | | | |
|---|---|---|---|
| CN100 | F-7 | D130 | B-2 |
| CN101 | A-3 | D131 | C-2 |
| CN102 | D-2 | D132 | C-5 |
| CN103 | F-9 | D133 | C-5 |
| | | D134 | D-9 |
| D100 | B-3 | D135 | B-3 |
| D101 | D-2 | D136 | B-4 |
| D102 | D-2 | D137 | A-9 |
| D103 | C-8 | D138 | A-1 |
| D104 | C-6 | D140 | B-1 |
| D105 | A-6 | D141 | C-1 |
| D107 | A-3 | D142 | C-5 |
| D108 | C-5 | D143 | C-5 |
| D109 | C-9 | D144 | C-6 |
| D110 | C-5 | D145 | D-2 |
| D111 | B-6 | D146 | B-2 |
| D112 | A-5 | D147 | C-1 |
| D113 | A-2 | D148 | B-3 |
| D114 | C-5 | D149 | C-4 |
| D115 | C-4 | D150 | E-4 |
| D116 | B-5 | | |
| D117 | B-5 | IC100 | D-5 |
| D118 | A-5 | IC101 | C-3 |
| D119 | A-2 | IC102 | E-5 |
| D120 | B-2 | IC103 | B-5 |
| D121 | B-2 | IC104 | C-5 |
| D122 | C-2 | | |
| D123 | C-5 | Q100 | E-4 |
| D124 | D-8 | Q101 | E-4 |
| D125 | B-4 | Q102 | E-5 |
| D126 | B-5 | Q103 | E-5 |
| D127 | A-4 | Q104 | E-5 |
| D128 | A-1 | Q105 | E-5 |
| D129 | B-1 | Q106 | E-6 |
| | | Q107 | D-5 |




KY-22 BOARD (SIDE B)




KY-22 BOARD (SIDE A

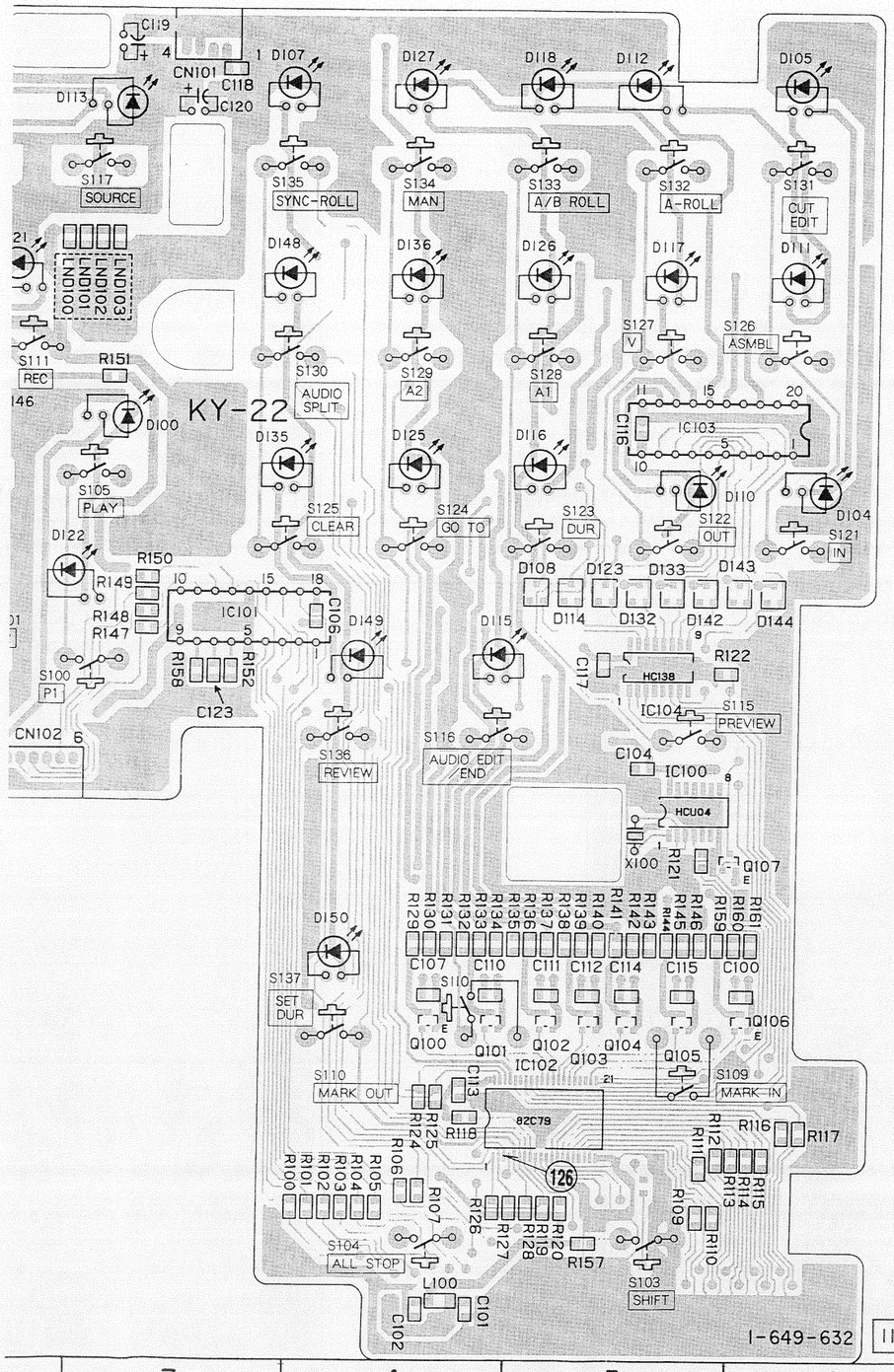


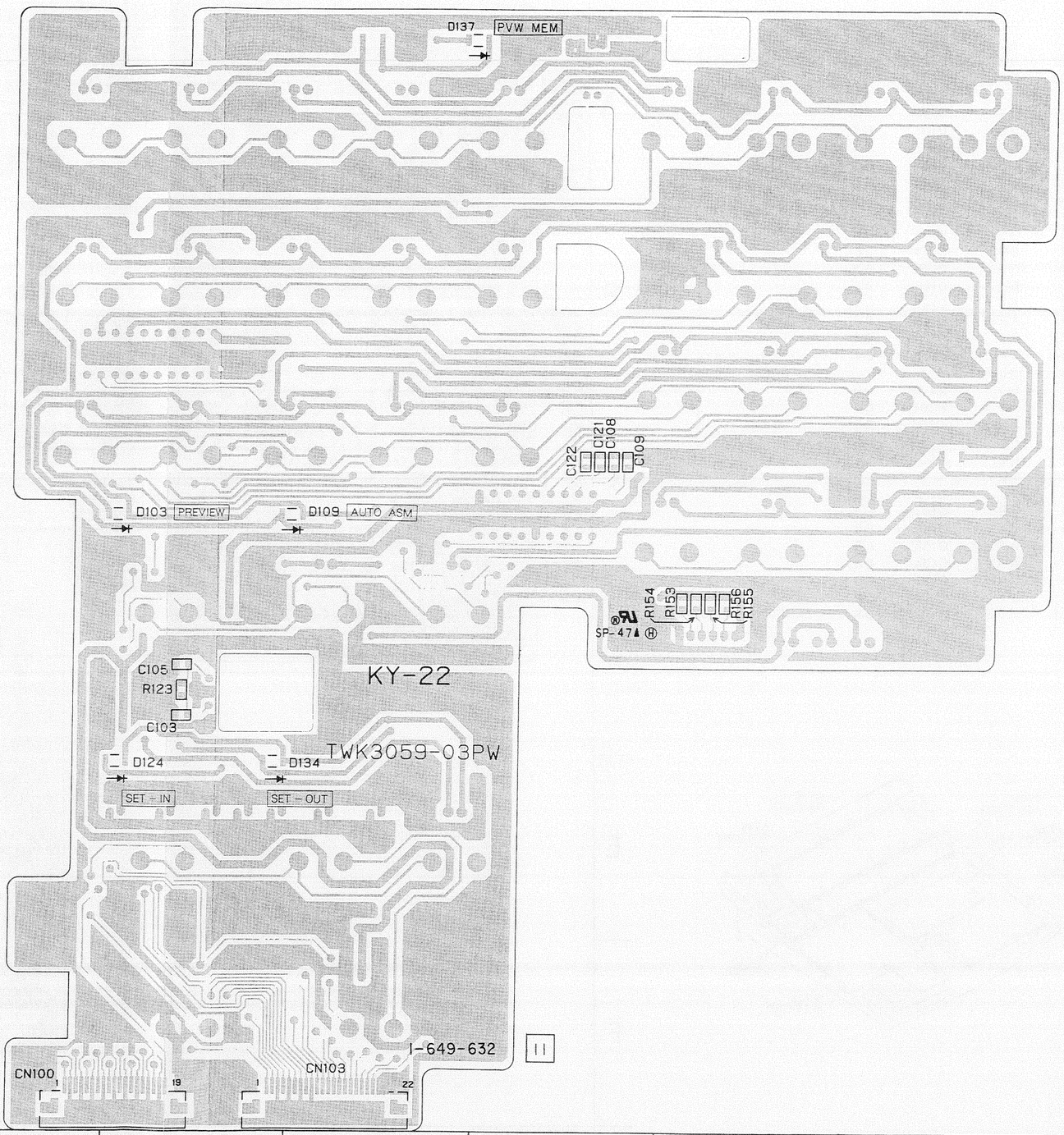



VE-V13317 / Druck 39

3)

KY-22 BOARD (SIDE A)




3 4 5 6 7 8 9 10 11 12

4-48

4-49

KEY EDIT

## RS-62 (RS-422/232C) /ED-41 (EDL INPUT/OUTPUT) PRINTED WIRING BOARD

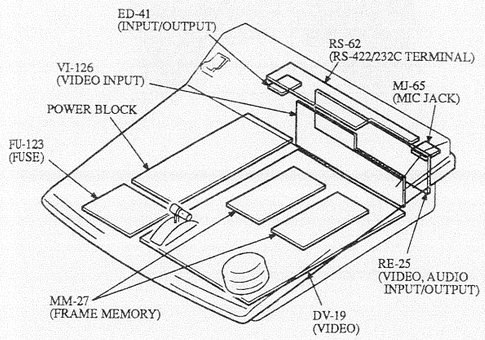
– Ref No. RS-62 BOARD : 4,000/ED-41 BOARD : 2,000 Seriese –

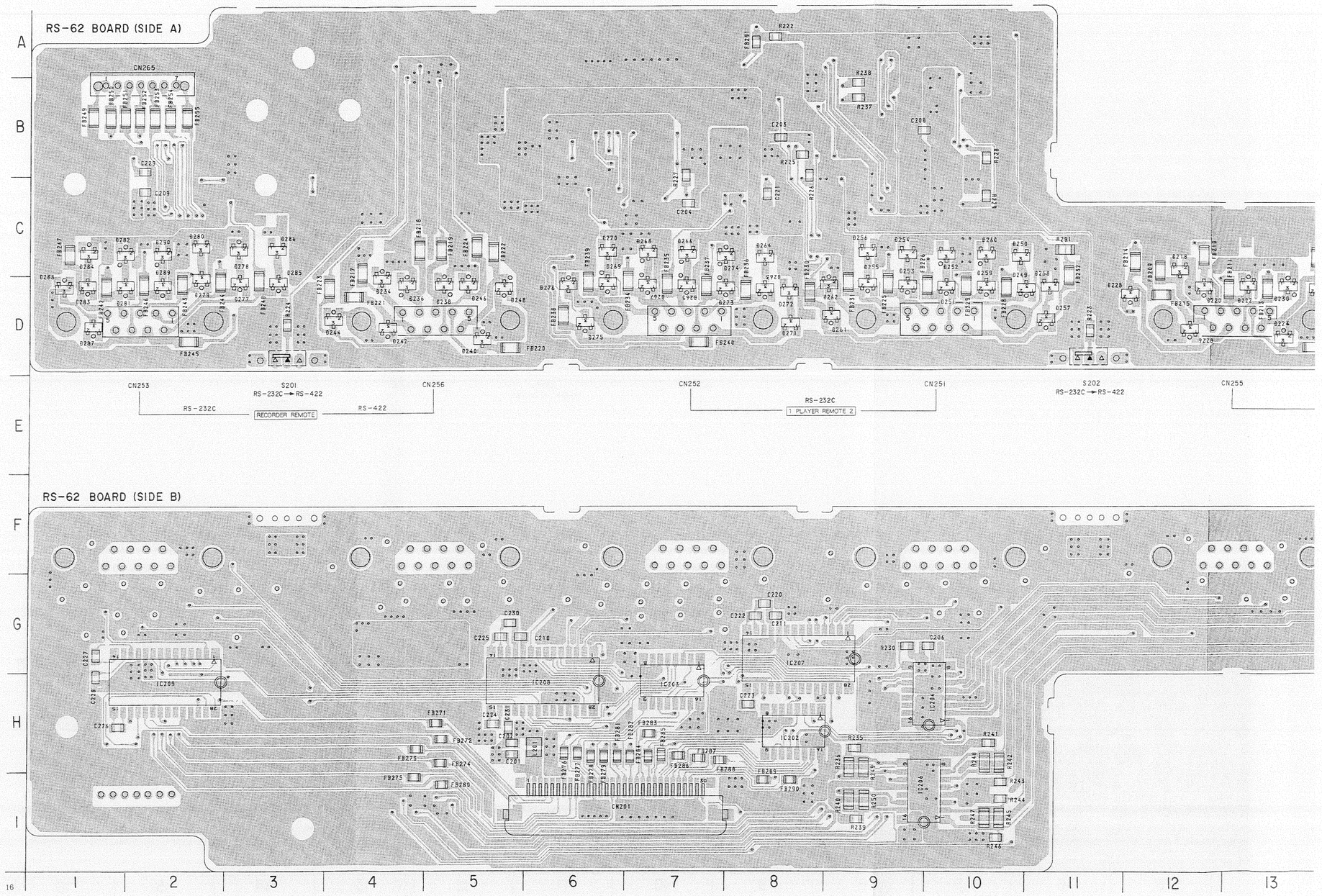
### RS-62 BOARD

| | | | |
|---|---|---|---|
| CN201 | I-7 | D258 | C-11 |
| CN251 | D-10 | D259 | C-10 |
| CN252 | D-7 | D260 | C-10 |
| CN253 | D-2 | D261 | D-9 |
| CN254 | D-15 | D262 | D-9 |
| CN255 | D-13 | D263 | C-8 |
| CN256 | D-5 | D264 | C-8 |
| CN265 | A-2 | D265 | D-7 |
| | | D266 | C-7 |
| D202 | C-15 | D267 | D-7 |
| D204 | C-15 | D268 | C-7 |
| D206 | C-15 | D269 | C-6 |
| D208 | D-16 | D270 | C-6 |
| D210 | D-15 | D271 | D-8 |
| D212 | D-14 | D272 | D-8 |
| D214 | C-16 | D273 | D-8 |
| D216 | C-16 | D274 | C-8 |
| D218 | C-12 | D275 | D-6 |
| D220 | D-12 | D276 | D-6 |
| D222 | C-13 | D277 | D-3 |
| D224 | D-13 | D278 | C-3 |
| D226 | D-12 | D279 | D-2 |
| D228 | C-12 | D280 | C-2 |
| D230 | C-13 | D281 | D-2 |
| D232 | C-14 | D282 | C-2 |
| D234 | D-4 | D283 | D-1 |
| D236 | D-4 | D284 | C-1 |
| D238 | D-5 | D285 | C-3 |
| D240 | D-5 | D286 | C-3 |
| D242 | D-4 | D287 | A-1 |
| D244 | D-4 | D288 | A-1 |
| D246 | D-5 | D289 | C-2 |
| D248 | D-5 | D290 | C-2 |
| D249 | C-10 | | |
| D250 | C-10 | IC202 | H-8 |
| D251 | D-10 | IC203 | H-7 |
| D252 | C-10 | IC204 | H-10 |
| D253 | C-9 | IC206 | I-9 |
| D254 | C-9 | IC207 | G-8 |
| D255 | C-9 | IC208 | H-6 |
| D256 | C-9 | IC209 | H-2 |
| D257 | D-11 | | |

### ED-41 BOARD

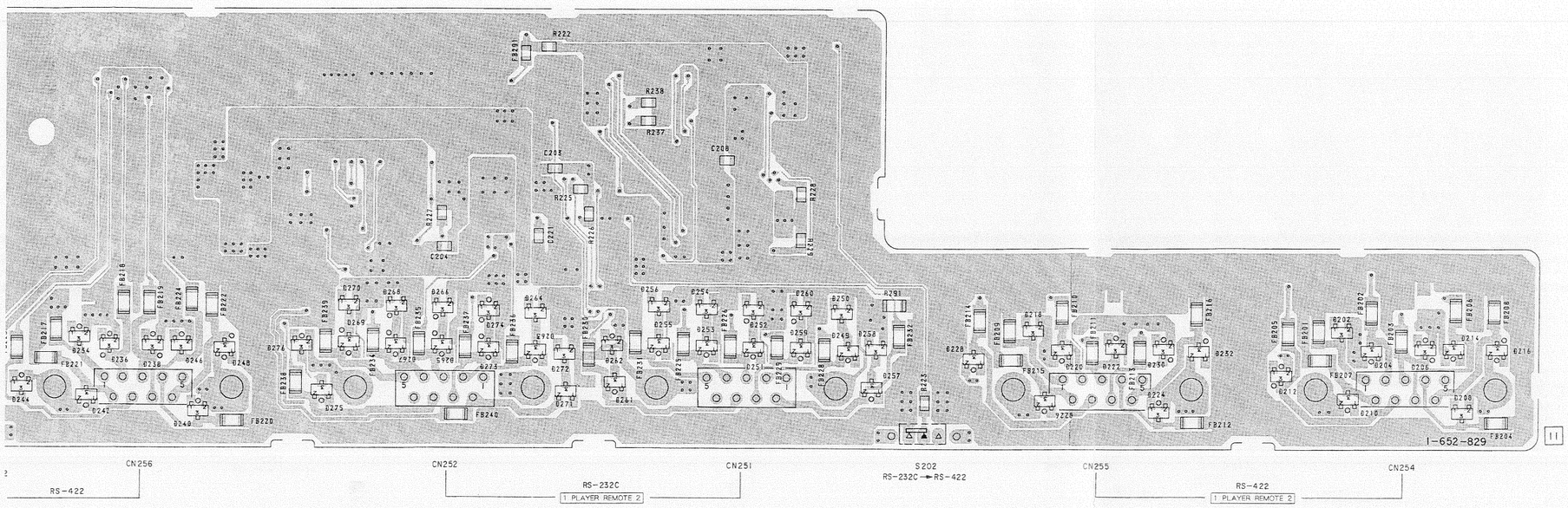
| | |
|---|---|
| CN260 | D-19 |
| | |
| D851 | C-18 |
| D852 | C-18 |
| D853 | F-19 |
| D854 | G-19 |
| D855 | G-19 |
| D856 | G-19 |
| D857 | D-18 |
| D858 | D-18 |
| D859 | D-19 |
| D860 | D-19 |
| D861 | C-19 |
| D862 | C-19 |
| D863 | G-19 |
| D864 | G-19 |
| | |
| W210 | B-19 |



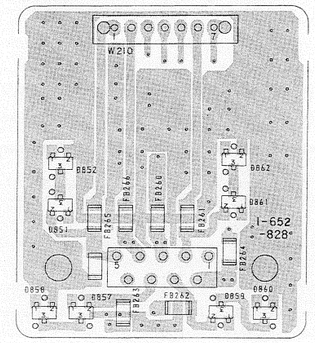



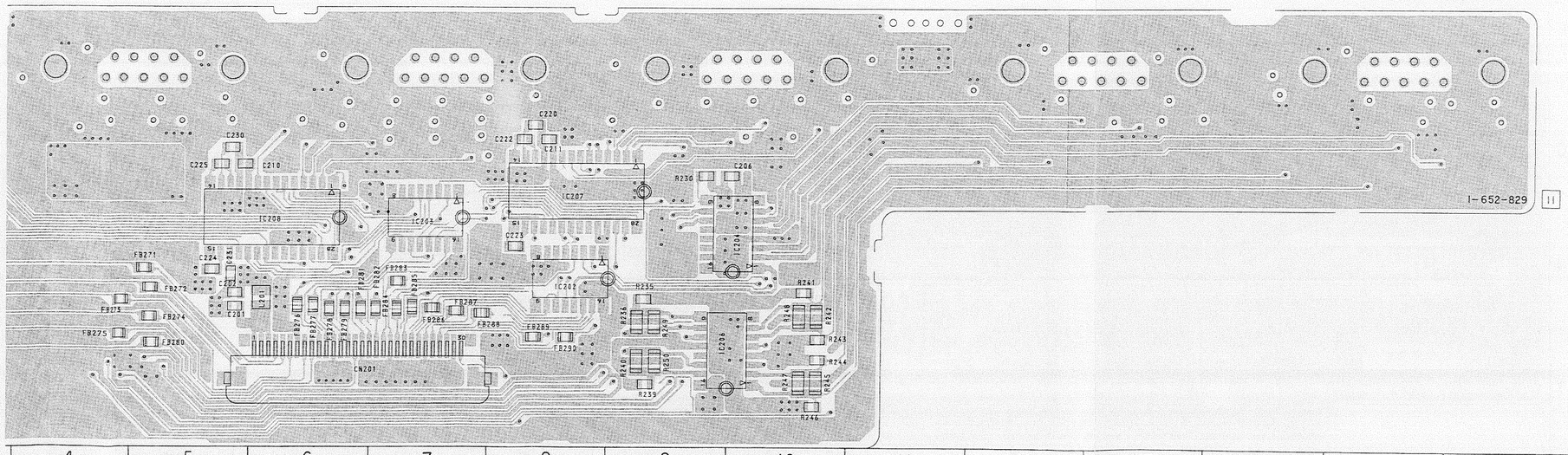
## IT) PRINTED WIRING BOARD

,000 Seriese –

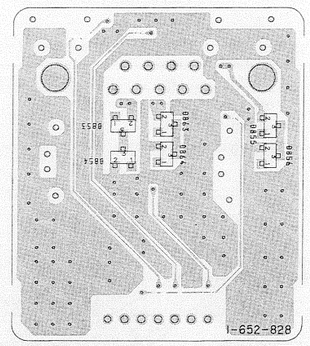



ED-41 BOARD (SIDE A)



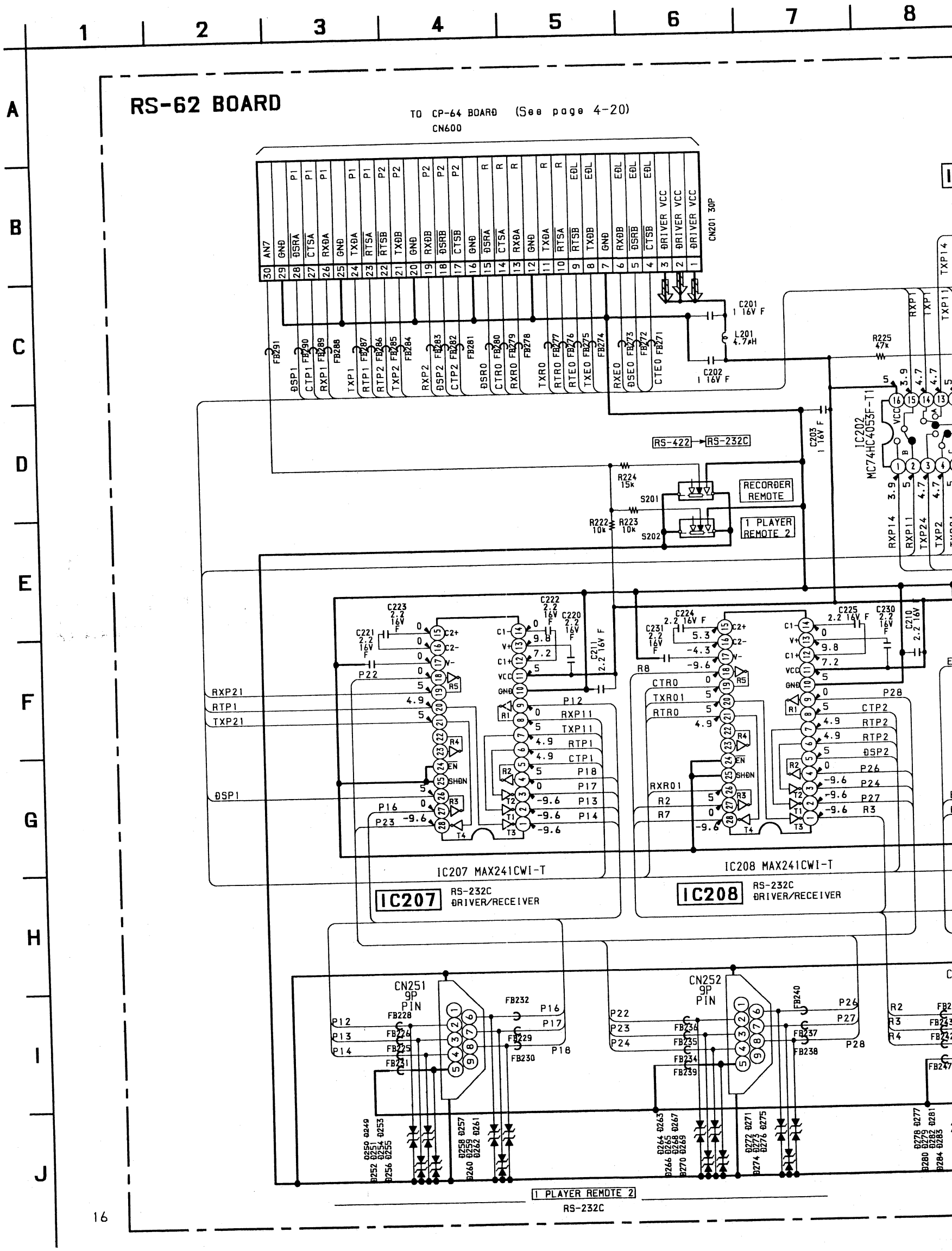




ED-41 BOARD (SIDE B)



## RS-62 (RS-422/232C) /ED-41 (EDL INPUT/OUTPUT) SCHEMATIC DIAGRAM

– Ref No. RS-62 BOARD : 4,000/ED-41 BOARD : 2,000 Seriese –



7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16

IC202 IC203
RS-232C/422
SELECT SWITCH

CN251-CN253

IC204
RS-422
ÐRIVER

Ð202-248 RÐ9.1M

IC202 MC74HC4053F-T1
IC203 MC74HC4053F-T1
IC204 AM26LS31CNS-T1
IC206 AM26LS32ACNS-T1

RS-422
ÐRIVER
IC206

IC209 MAX241CWI-T
IC209 RS-232C ÐRIVER/RECEIVER

CN256 9P SOCKET
CN254 9P SOCKET

RECORÐER REMOTE
RS-232C
CN253 9P PIN

CN265 7P

| | |
|---|---|
| 7 | TXÐ EÐL |
| 6 | RXÐ EÐL |
| 5 | RTS EÐL |
| 4 | CTS EÐL |
| 3 | ÐSR EÐL |
| 2 | ÐTR EÐL |
| 1 | GNÐ |

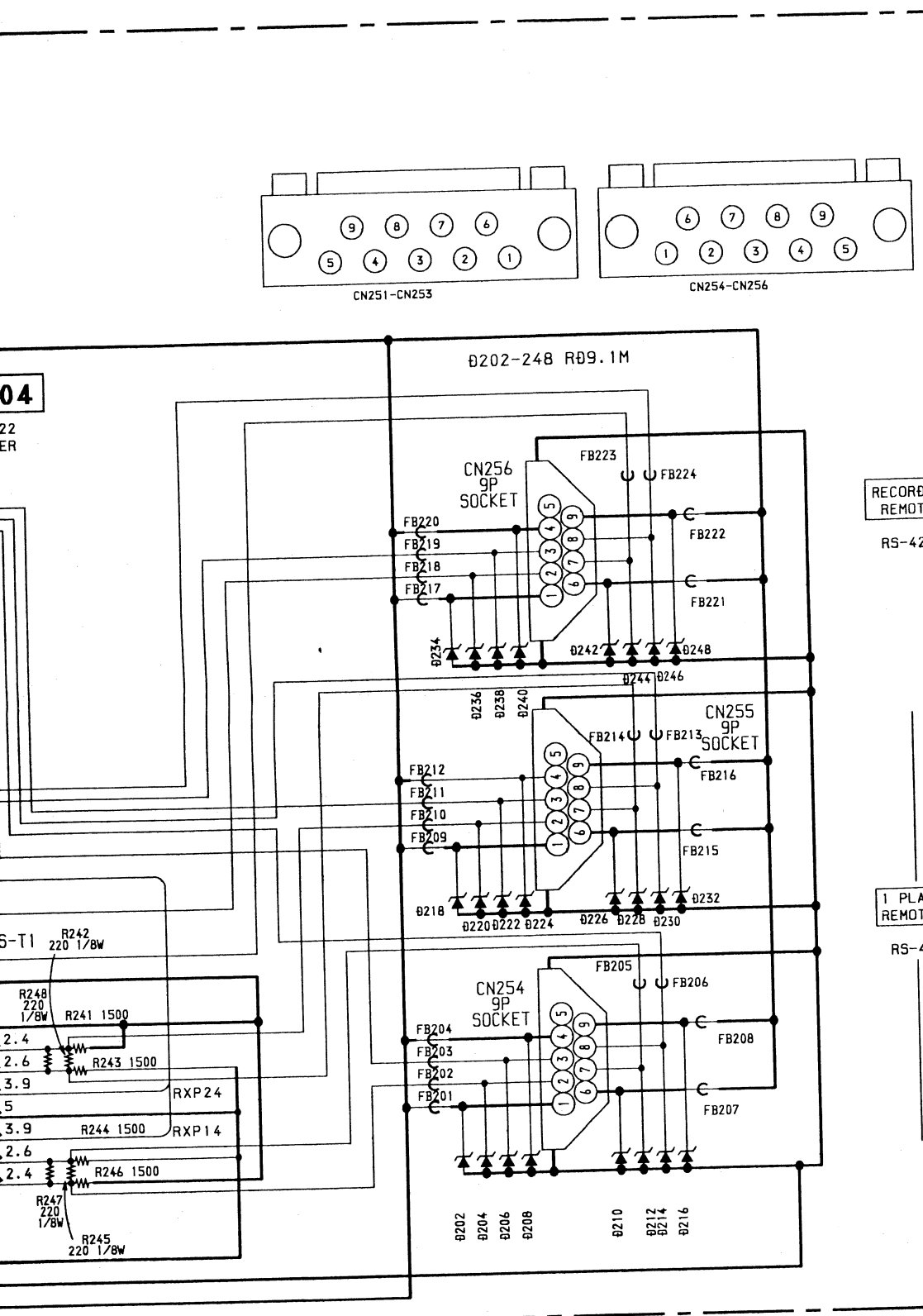
W210 7P

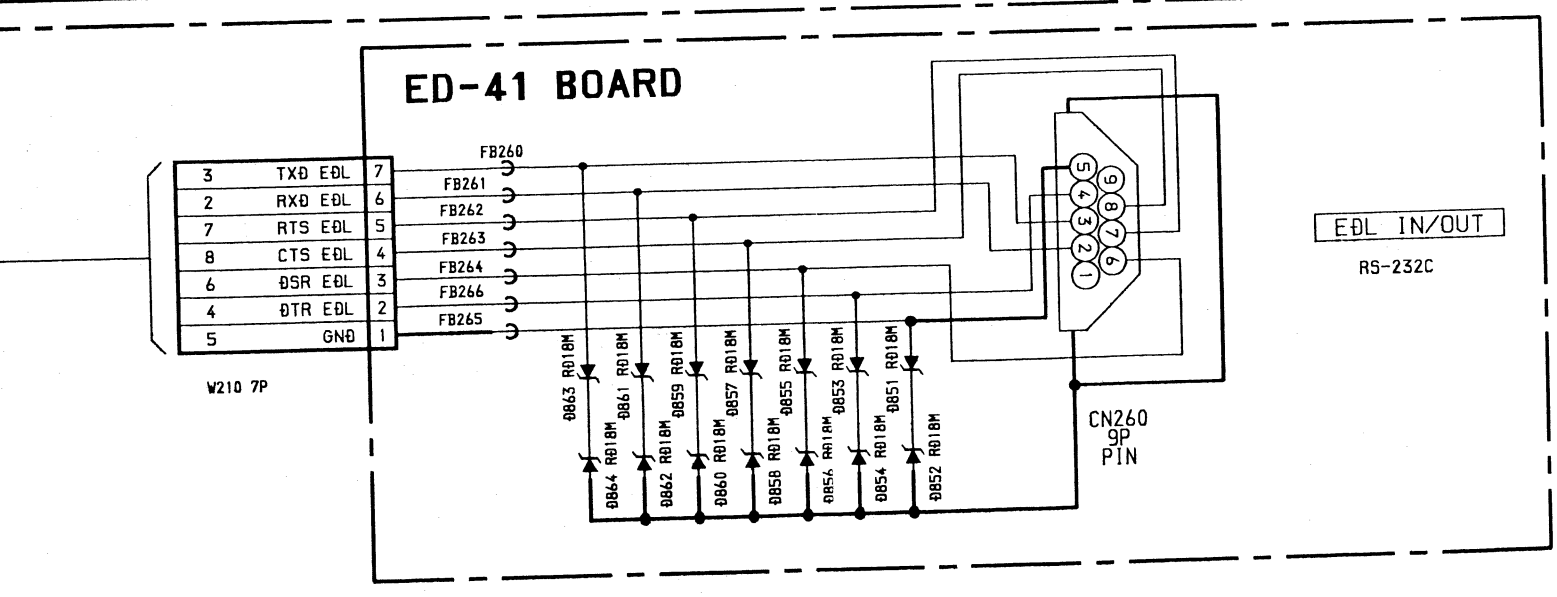
| | |
|---|---|
| 3 | TXÐ EÐL |
| 2 | RXÐ EÐL |
| 7 | RTS EÐL |
| 8 | CTS EÐL |
| 6 | ÐSR EÐL |
| 4 | ÐTR EÐL |
| 5 | GNÐ |

ED-41 BOARD

ÐØ49-290 RÐ18M

13 | 14 | 15 | 16 | 17 | 18 | 19 | 20



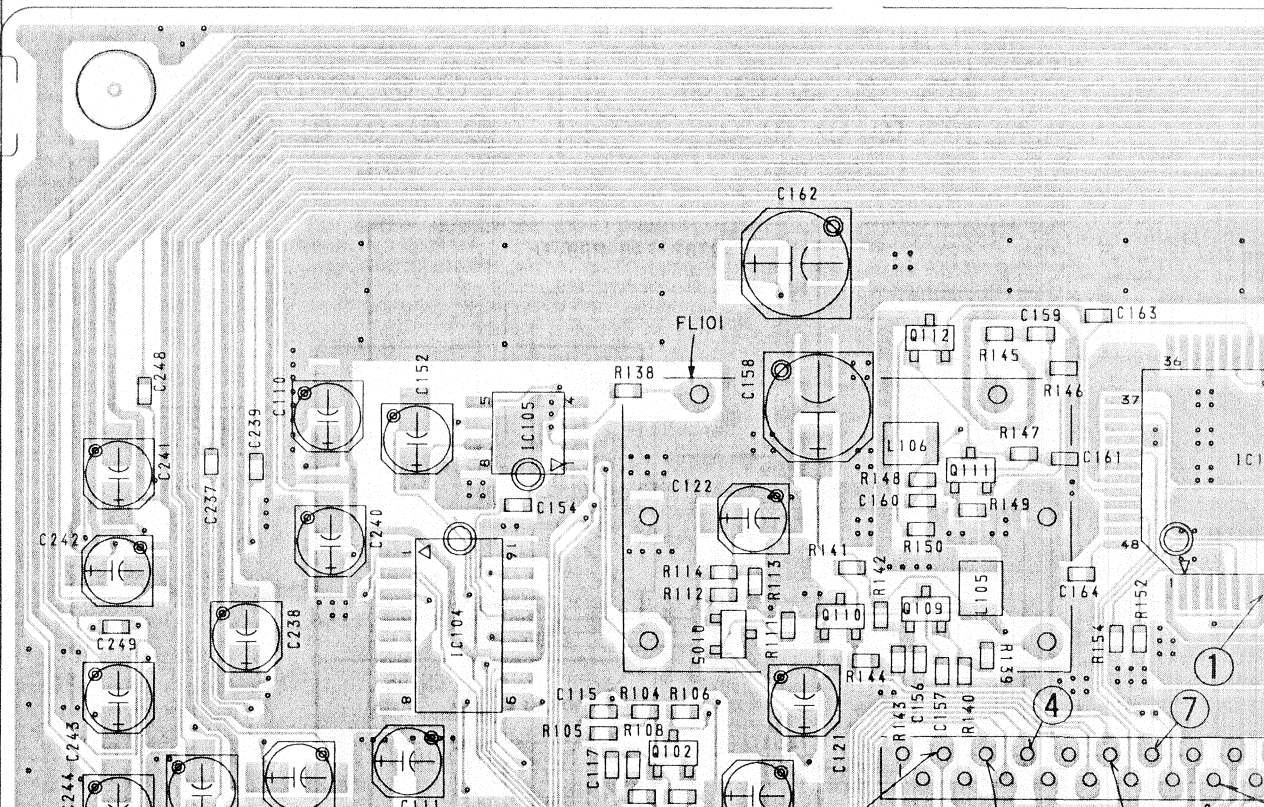
## VI-126 (VIDEO INPUT) PRINTED WIRING BOARD

– Ref No. VI-126 BOARD : 6,000 Seriese –

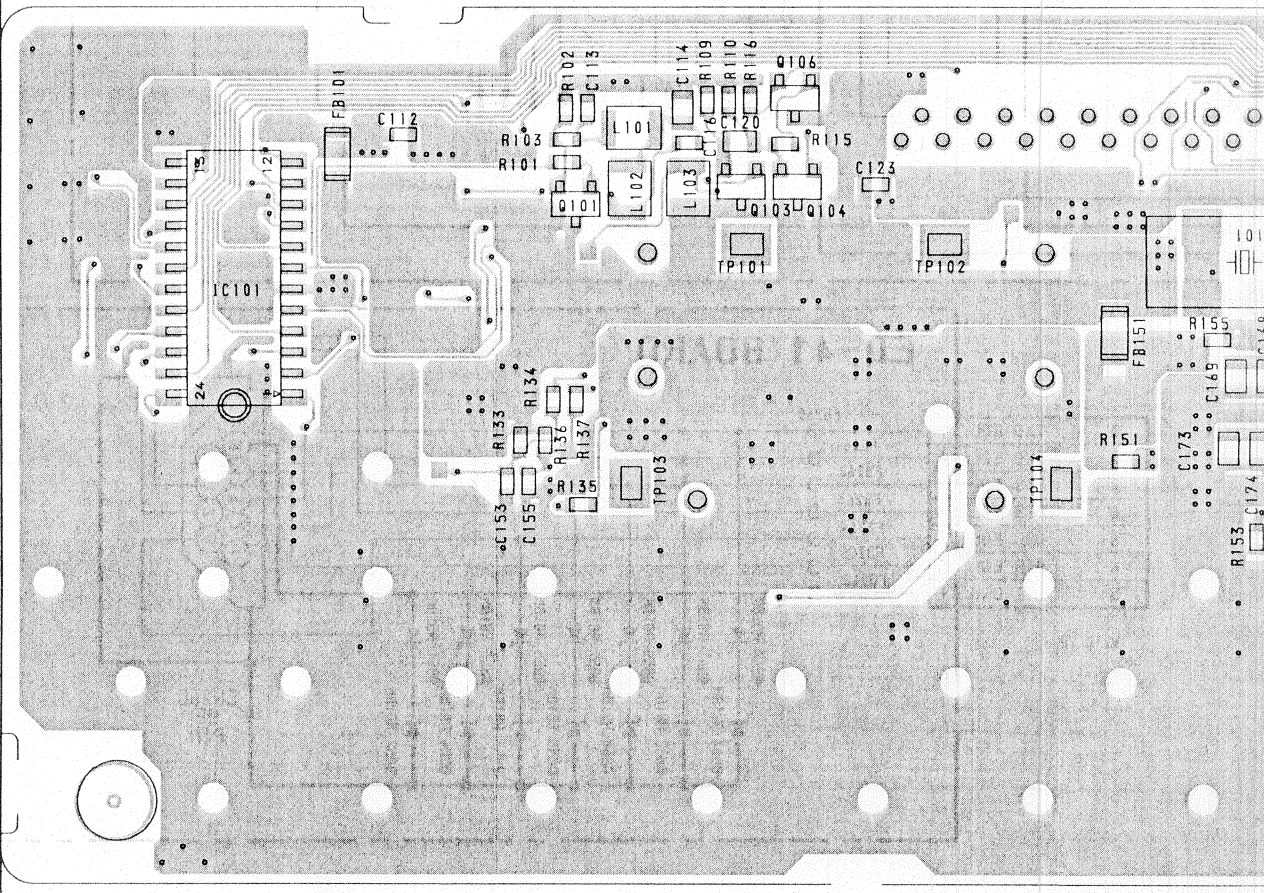
### VI-126 BOARD

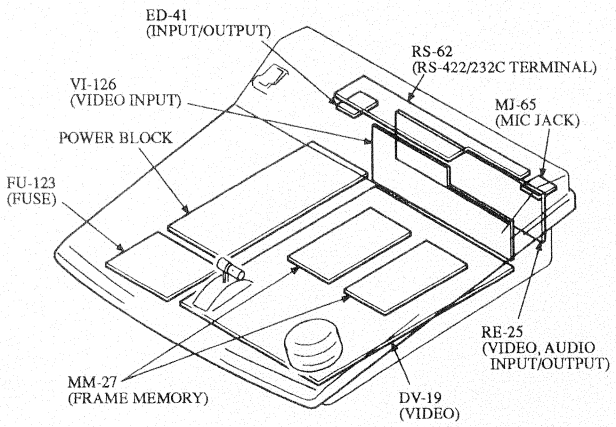
| | |
|---|---|
| CN101 | A-9 |
| CN102 | E-4 |
| CN103 | D-10 |
| CN104 | A-9 |
| CN105 | A-12 |
| IC101 | G-1 |
| IC104 | D-2 |
| IC105 | C-2 |
| IC106 | D-5 |
| IC107 | G-6 |
| IC191 | H-6 |
| IC201 | G-7 |
| IC204 | D-8 |
| IC205 | C-8 |
| IC206 | C-10 |
| IC207 | G-11 |
| IC208 | G-12 |
| IC209 | G-13 |
| IC210 | G-14 |
| IC211 | H-12 |
| IC291 | H-12 |
| Q101 | G-3 |
| Q102 | D-3 |
| Q103 | G-3 |
| Q104 | G-3 |
| Q105 | D-3 |
| Q106 | F-3 |
| Q109 | D-4 |
| Q110 | D-3 |
| Q111 | D-4 |
| Q112 | C-4 |
| Q113 | D-6 |
| Q114 | H-6 |
| Q115 | G-6 |
| Q200 | D-13 |
| Q201 | G-8 |
| Q202 | D-8 |
| Q203 | G-9 |
| Q204 | G-9 |
| Q205 | D-9 |
| Q206 | G-9 |
| Q207 | D-13 |
| Q208 | D-12 |
| Q209 | D-9 |
| Q210 | D-9 |
| Q211 | C-9 |
| Q212 | C-9 |
| Q213 | C-11 |
| Q214 | H-11 |
| Q215 | G-11 |
| Q216 | D-12 |

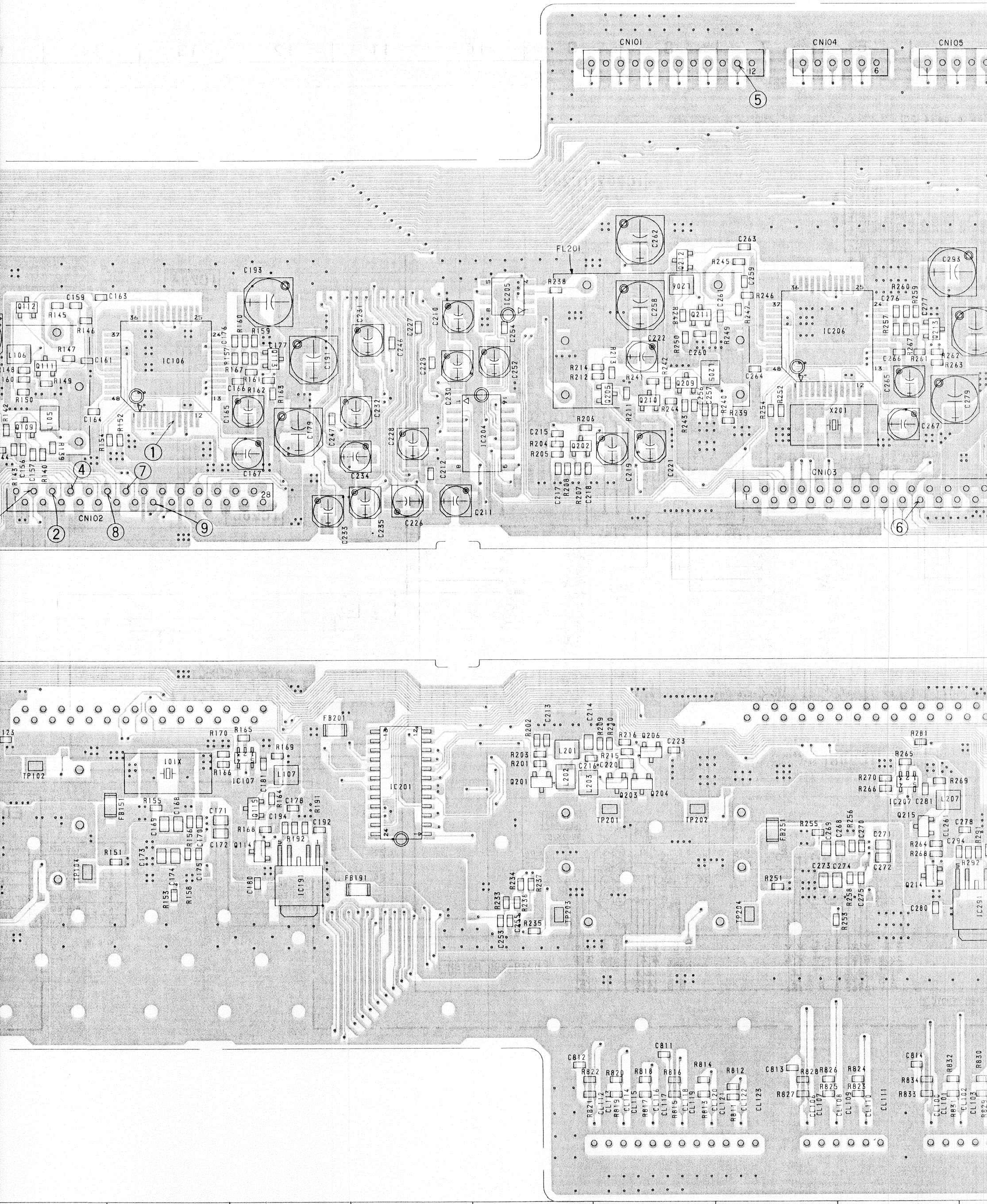
VI-126 BOARD (SIDE A)




VI-126 BOARD (SIDE B)

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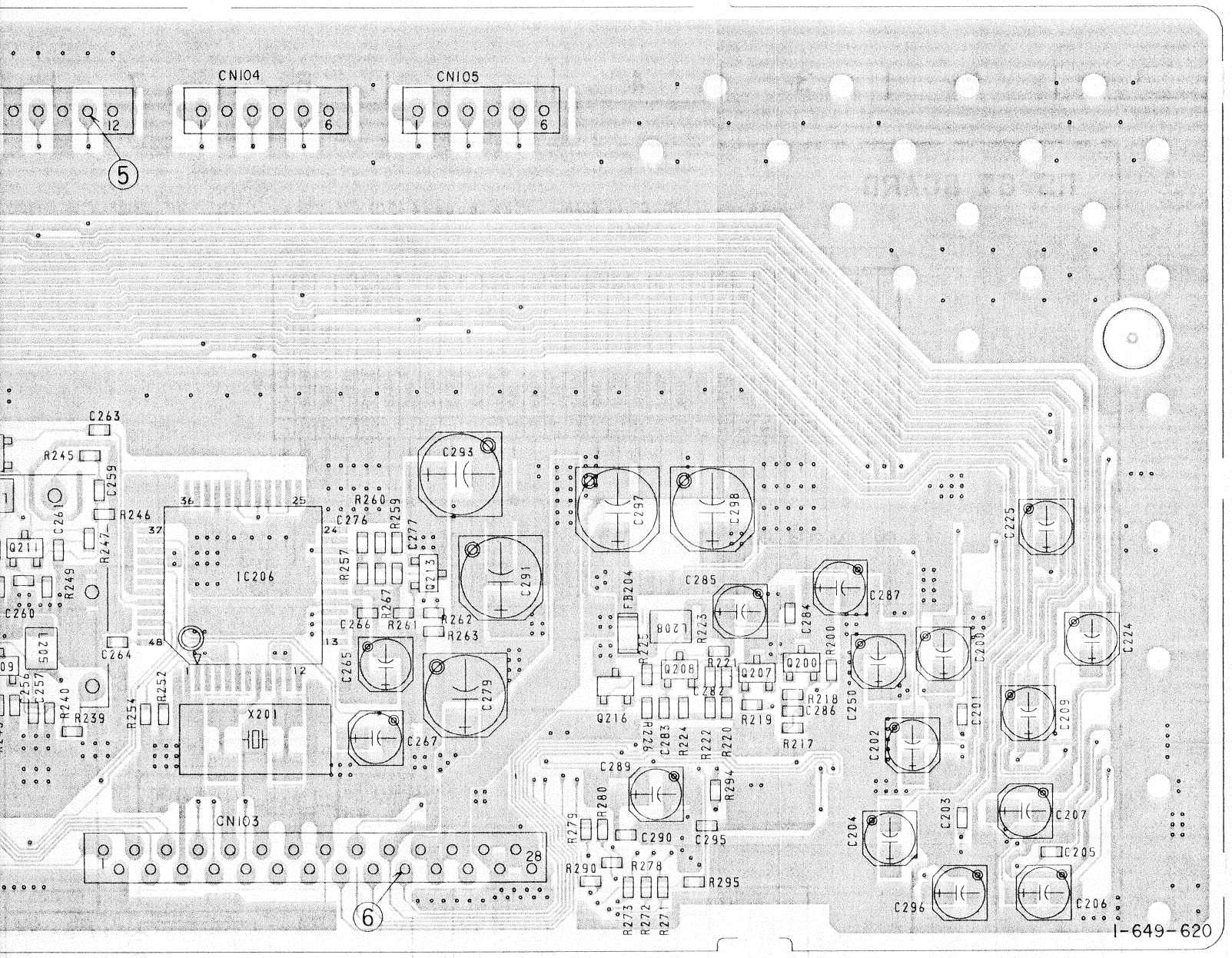
CN104
CN105
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C263
R245
C259
R246
C261
R247
Q211
R249
C260
C264
R239
R240
R254
R252
C256
C257
L205
X201
IC206
36
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24
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R257
R260
C276
R259
C277
Q213
R267
R262
R263
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C279
C291
C293
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C298
FB204
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Q208
R221
Q207
Q200
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C286
R219
R217
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C287
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C250
C202
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C206
Q216
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R271
CN103
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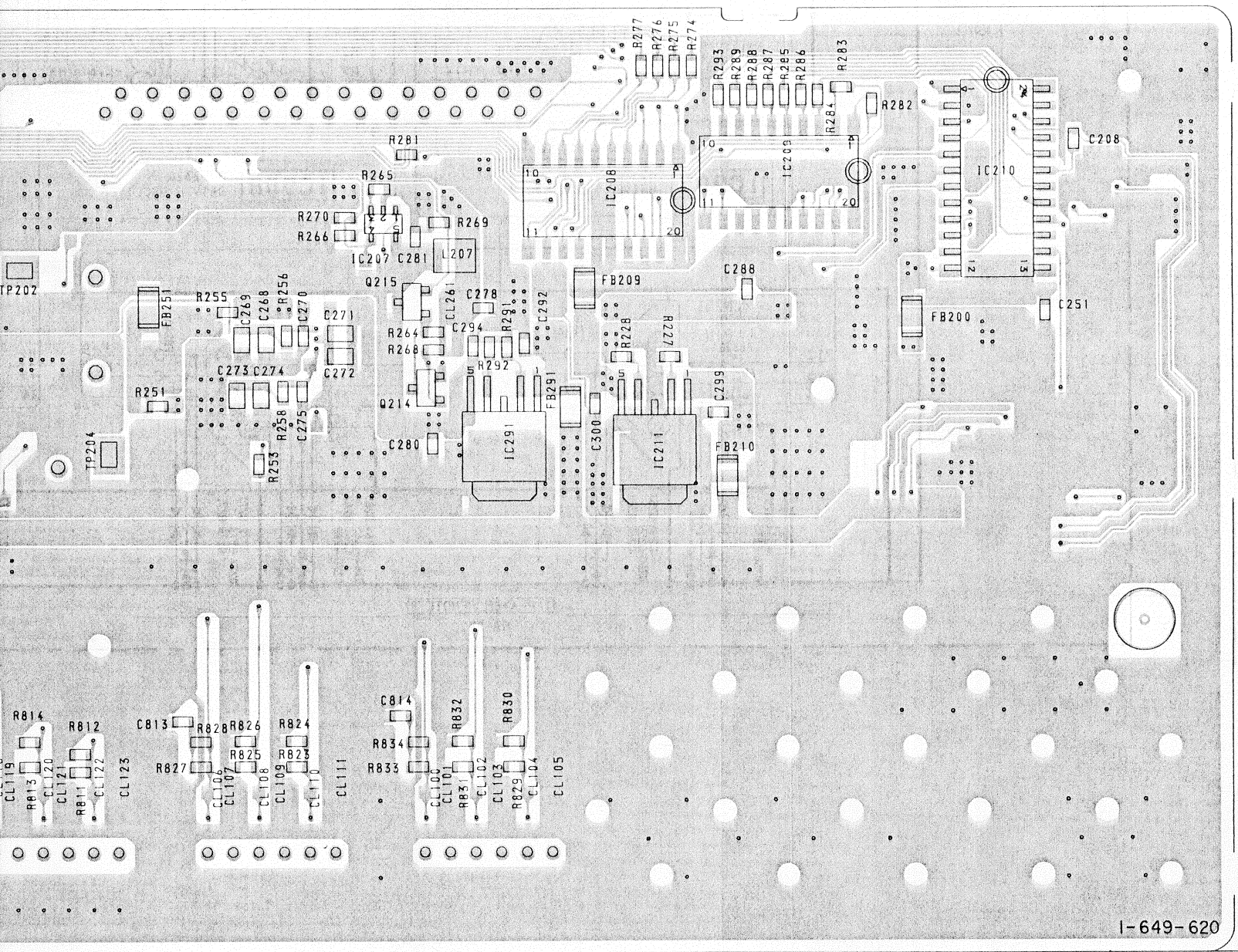
I-649-620
12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R266
R269
IC208
IC209
IC210
C208
IC207
C281
L207
Q215
FB209
C288
TP202
FB251
R255
C269
C268
R256
C270
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C294
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C274
C272
R251
Q214
C280
IC291
FB291
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IC211
C299
FB210
TP204
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R258
C275
C814
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R830
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R833
C813
R828
R826
R824
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R825
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R814
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CL122
CL123
CL106
CL107
CL108
CL109
CL110
CL111
CL100
CL101
CL102
CL103
CL104
CL105
R831
R829
I-649-620
12
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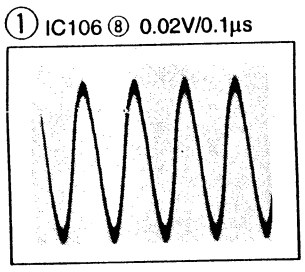
12
13
14
15

## VI-126 (VIDEO INPUT) SCHEMATIC DIAGRAM

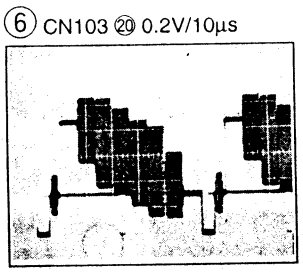
– Ref No. VI-126 BOARD : 6,000 Seriese –

VI-126 Board

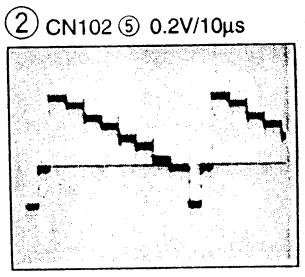
① IC106 ⑧ 0.02V/0.1µs



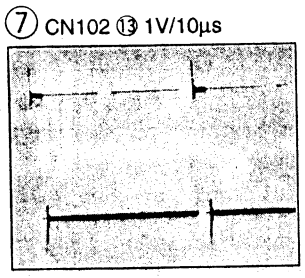
⑥ CN103 ⑳ 0.2V/10µs



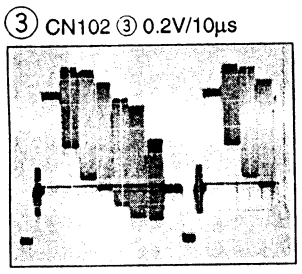
② CN102 ⑤ 0.2V/10µs



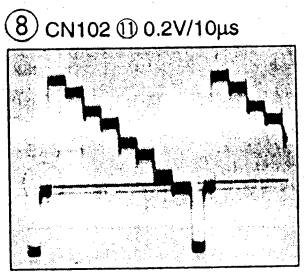
⑦ CN102 ⑬ 1V/10µs



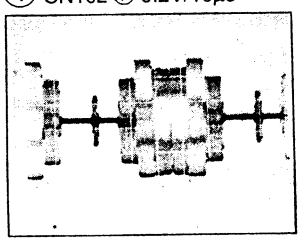
③ CN102 ③ 0.2V/10µs



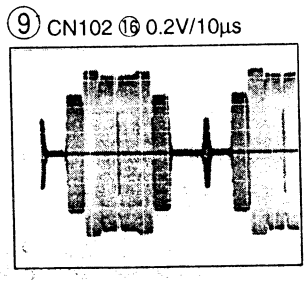
⑧ CN102 ⑪ 0.2V/10µs



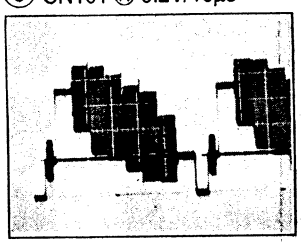
④ CN102 ⑦ 0.2V/10µs

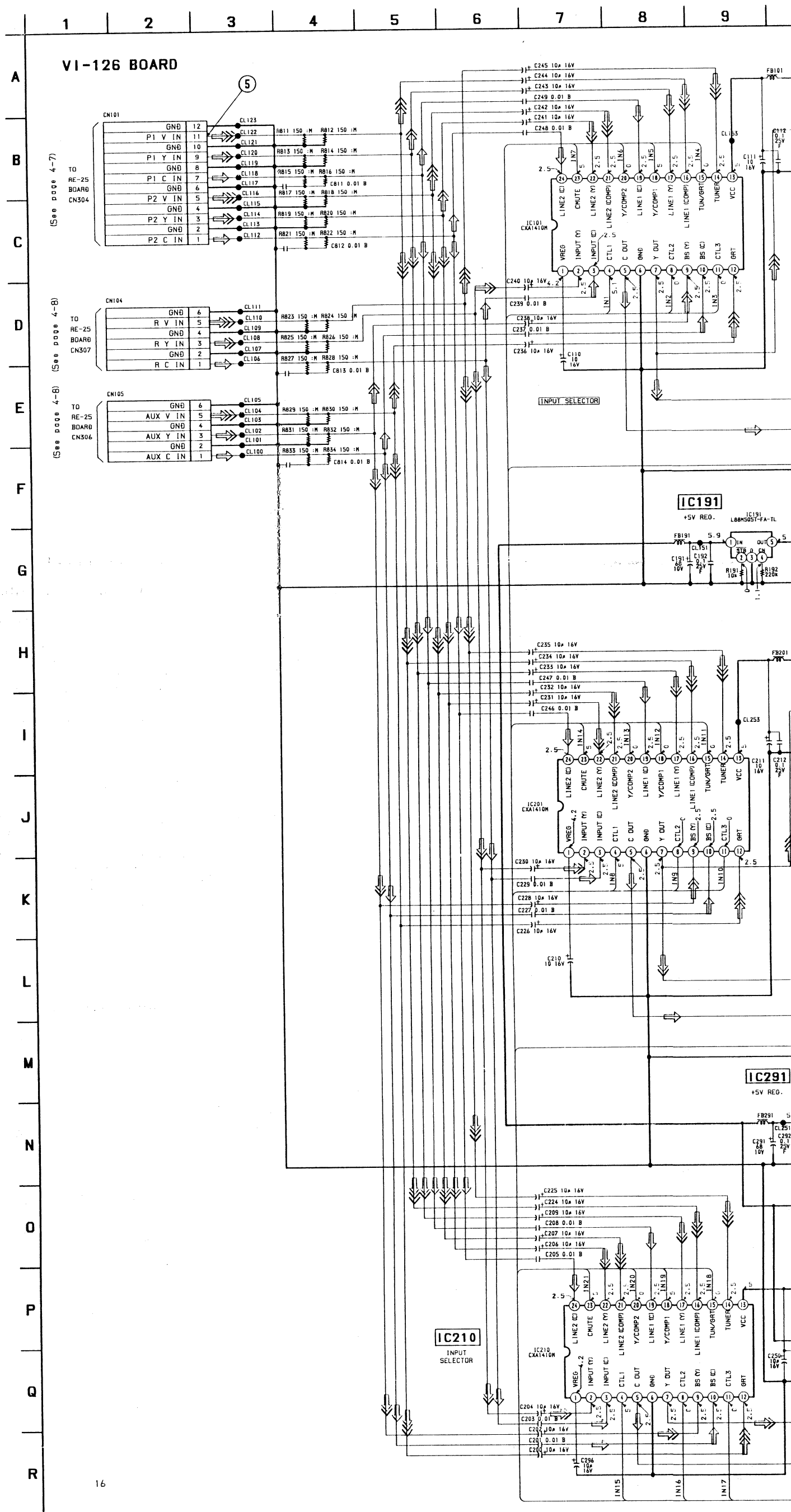


⑨ CN102 ⑯ 0.2V/10µs



⑤ CN101 ⑪ 0.2V/10µs






• **SIGNAL PATH (ANALOG)**

| VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|
| CHROMA | Y | Y/CHROMA | |
| ⇨ | ⇨ | ⇨ | |

IC101 INPUT SELECT

Q101 BUFFER

Q102, 103 AMP

Q104-106 CLAMP

IC104 SELECTOR

IC105 VCA

PRE FILTER
Y:LOWPASS
DELAY EQUALIZER
C:BANDPASS (DELAY FLAT)

Q109, 110 AMP

IC106 ACC&ACK

IC107 COMP.

PAL

IC191 +5V REG.

ACC & ACK

X101 1FSC

Q115-115 AMP

IC201 INPUT SELECT

Q202, 203 AMP

Q204-206 CLAMP

IC204 SELECTER

IC205 VCA

Q209, 210 AMP

IC206 ACC&ACK

IC207 COMP.

PAL

IC291 +5V REG.

Q211, 212 AMP

X201 1FSC

Q213-215 COMP.

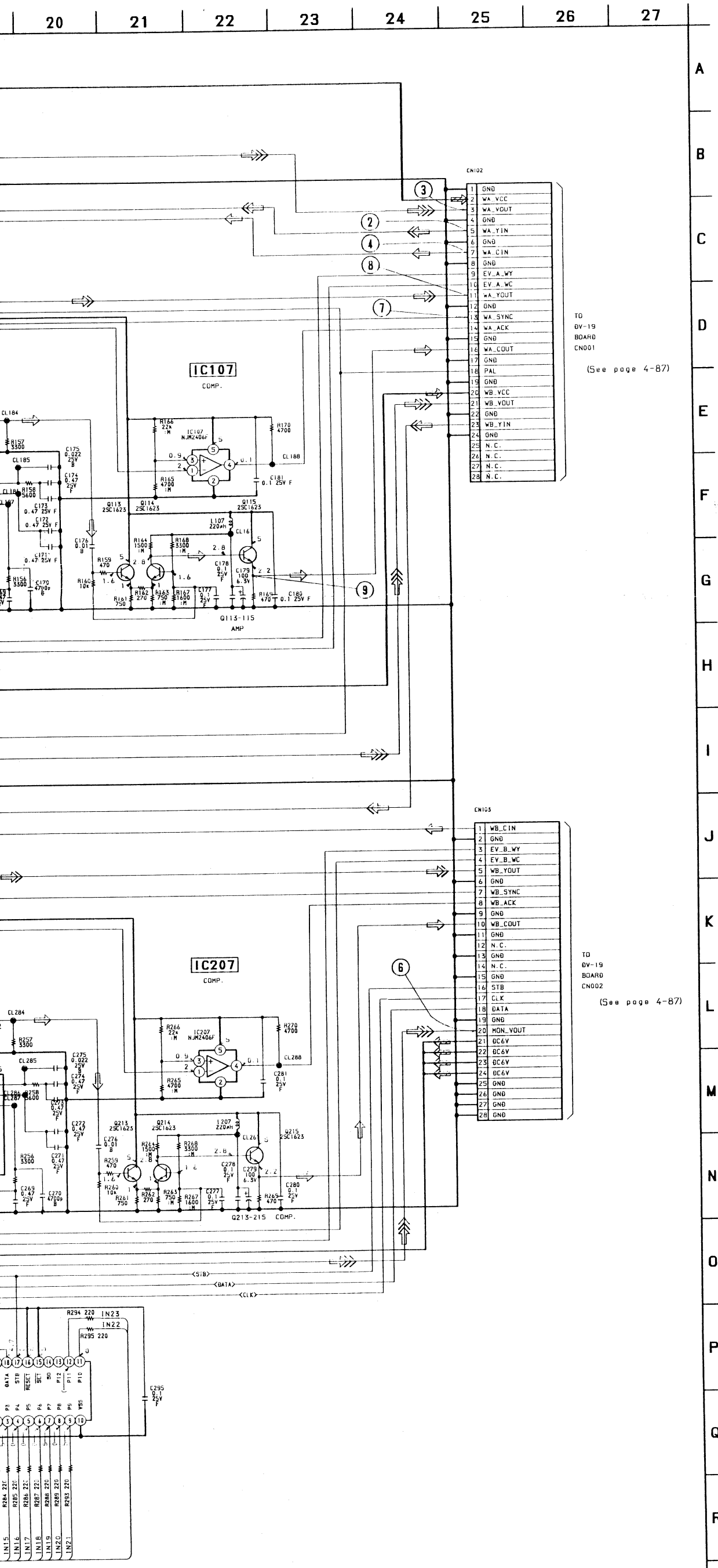
IC211 +5V REG.

Q200 BUFFER

Q207 BUFFER

Q208, 216 Y&C MIXER

IC208 IC209 ADDRESS DECODER (SERIAL TO PARALLEL)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I
J
K
L
M
N
O
P
Q
R
CN102
1 GND
2 WA_VCC
3 WA_VOUT
4 GND
5 WA_YIN
6 GND
7 WA_CIN
8 GND
9 EV_A_WY
10 EV_A_WC
11 WA_YOUT
12 GND
13 WA_SYNC
14 WA_ACK
15 GND
16 WA_COUT
17 GND
18 PAL
19 GND
20 WB_VCC
21 WB_VOUT
22 GND
23 WB_YIN
24 GND
25 N.C.
26 N.C.
27 N.C.
28 N.C.
TO
DV-19
BOARD
CN001
(See page 4-87)
IC107
COMP.
IC107
NJM2406F
R166 22k :M
R170 4700
R165 4700 :M
CL188
C181 0.1 25V F
CL184
R157 3300
CL185
C175 0.022 25V B
C174 0.47 25V F
CL186
R158 5600
CL187
C173 0.47 25V F
C172 0.47 25V F
C171 0.47 25V F
R156 3300
C170 4700p B
Q113 2SC1623
Q114 2SC1623
Q115 2SC1623
L107 220uH
CL16
C176 0.01 B
R164 1500 :M
R168 3300 :M
R159 470
R160 10k
R161 750
R162 270
R163 750 :M
R167 1600 :M
C177 0.1 25V F
C178 0.1 25V F
C179 100 6.3V
R169 470
C180 0.1 25V F
Q113-115
AMP
CN103
1 WB_CIN
2 GND
3 EV_B_WY
4 EV_B_WC
5 WB_YOUT
6 GND
7 WB_SYNC
8 WB_ACK
9 GND
10 WB_COUT
11 GND
12 N.C.
13 GND
14 N.C.
15 GND
16 STB
17 CLK
18 DATA
19 GND
20 MON_VOUT
21 DC6V
22 DC6V
23 DC6V
24 DC6V
25 GND
26 GND
27 GND
28 GND
TO
DV-19
BOARD
CN002
(See page 4-87)
IC207
COMP.
IC207
NJM2406F
R266 22k :M
R270 4700
R265 4700 :M
CL288
C281 0.1 25V F
CL284
R257 3300
CL285
C275 0.022 25V B
C274 0.47 25V F
CL286
R255 3300
CL287
C273 0.47 25V F
C272 0.47 25V F
R256 3300
C271 0.47 25V F
C269 0.47 25V F
C270 4700p B
Q213 2SC1623
Q214 2SC1623
Q215 2SC1623
L207 220uH
CL26
C276 0.01 B
R264 1500 :M
R268 3300 :M
R259 470
R260 10k
R261 750
R262 270
R263 750 :M
R267 1600 :M
C277 0.1 25V F
C278 0.1 25V F
C279 100 6.3V
R265 470
C280 0.1 25V F
Q213-215 COMP.
<STB>
<DATA>
<CLK>
R294 220 IN23
IN22
R295 220
C295 0.1 25V F
R284 220
R285 220
R286 220
R287 220
R288 220
R289 220
R293 220
IN15
IN16
IN17
IN18
IN19
IN20
IN21

## AM-32 BOARD

| | | | | | |
|---|---|---|---|---|---|
| CN001 | A-4 | IC004 | D-7 | IC616 | E-15 |
| CN002 | A-18 | IC005 | H-1 | IC620 | D-18 |
| CN003 | A-8 | IC051 | B-6 | | |
| CN004 | A-6 | IC061 | B-6 | Q001 | A-8 |
| CN005 | B-17 | IC071 | B-18 | Q002 | A-8 |
| CN006 | A-11 | IC072 | B-18 | Q003 | A-12 |
| CN007 | B-18 | IC505 | F-4 | Q004 | A-7 |
| | | IC506 | F-3 | Q005 | A-7 |
| D031 | C-17 | IC507 | E-13 | Q006 | A-7 |
| D032 | C-17 | IC509 | E-14 | Q007 | A-7 |
| D501 | D-10 | IC510 | E-11 | Q031 | C-17 |
| D502 | E-10 | IC511 | D-11 | Q051 | B-13 |
| D503 | D-10 | IC512 | D-15 | Q052 | B-13 |
| D504 | C-10 | IC513 | C-14 | Q061 | B-13 |
| D505 | C-10 | IC515 | D-18 | Q062 | B-13 |
| D601 | C-10 | IC516 | E-15 | Q071 | C-18 |
| D602 | D-10 | IC518 | C-11 | Q072 | C-18 |
| D603 | D-10 | IC519 | D-18 | | |
| | | IC520 | D-18 | | |
| IC001 | C-12 | IC603 | F-1 | | |
| IC002 | C-12 | IC605 | H-4 | | |
| IC003 | D-12 | IC606 | H-3 | | |

## AM-32 (AUDIO) /MJ-65 (MIC JACK) /AS-46 (VOLUME) PRINTED WIRING BOARD

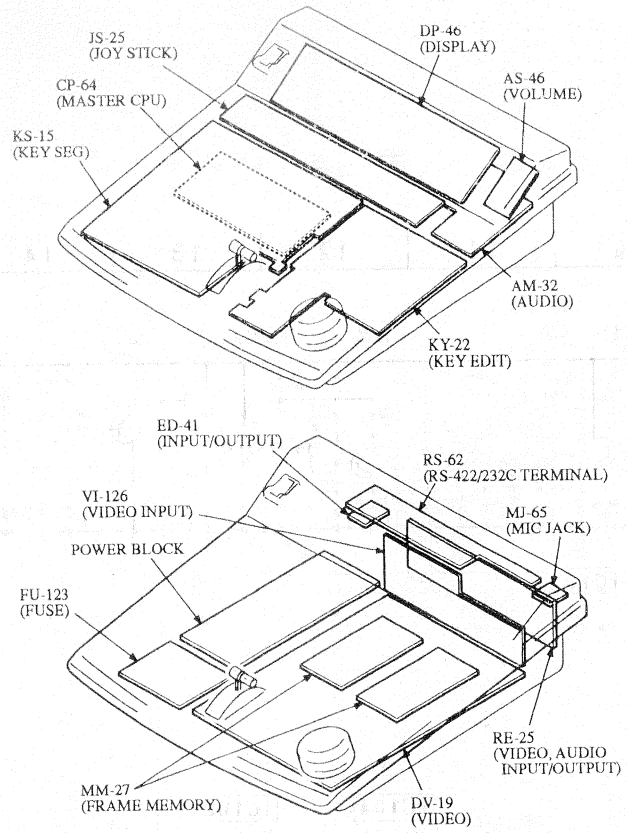
– Ref No. AM-32 BOARD : 1,000/ MJ-65 BOARD : 3,000/ AS-46 BOARD : 1,000 Seriese –

AM-32 BOARD (SIDE A)

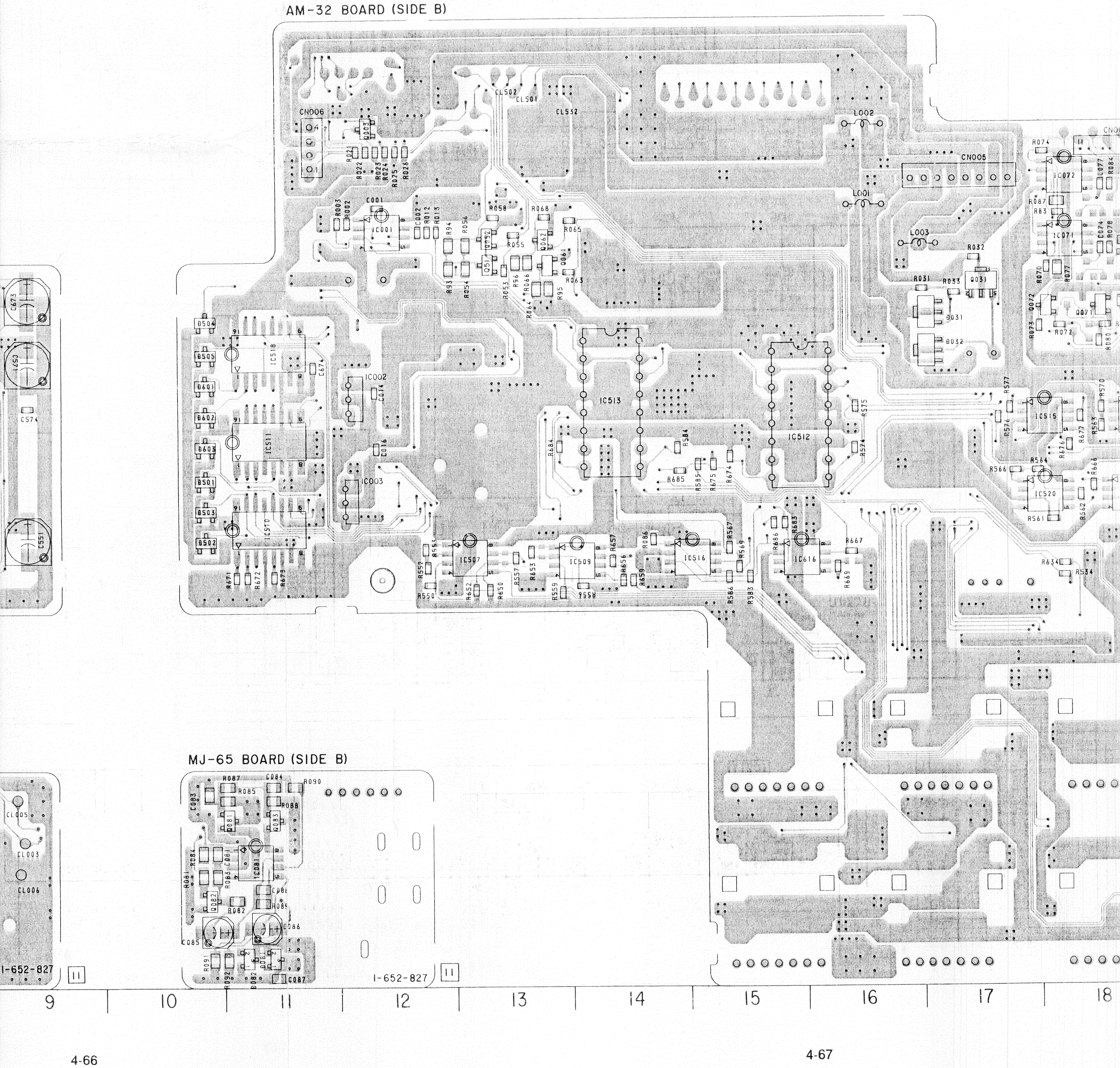
MJ-65 BOARD (SIDE A)

## MJ-65 BOARD

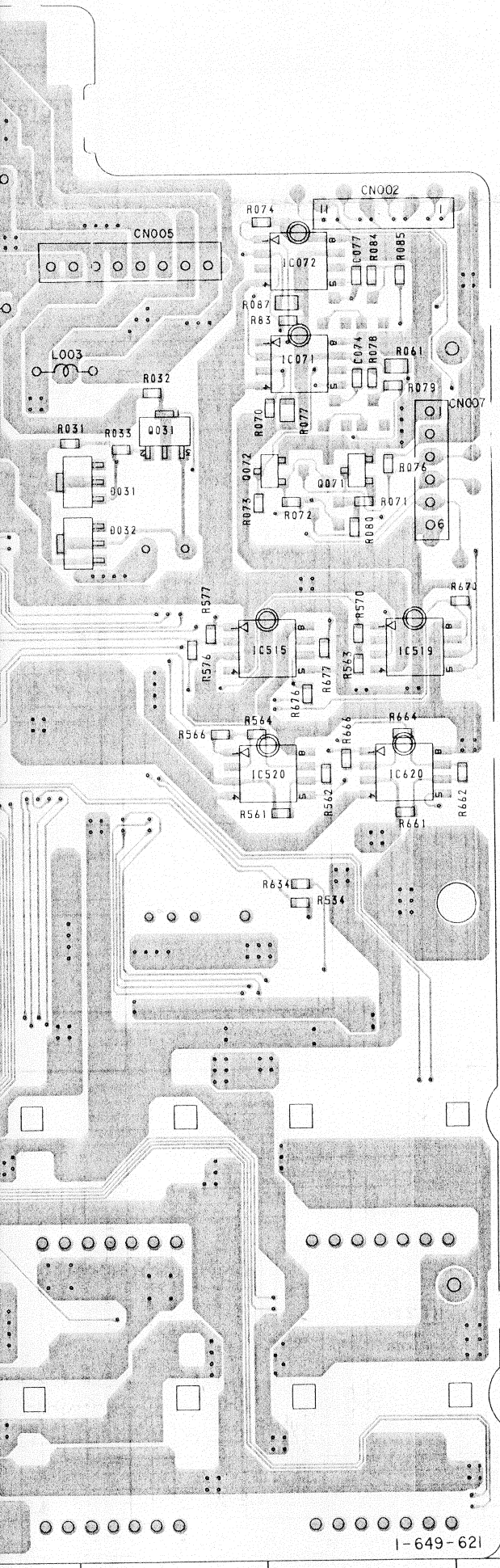
| | |
|---|---|
| D081 | H-11 |
| D082 | H-11 |
| IC081 | G-11 |
| Q081 | G-11 |
| Q082 | H-10 |
| Q083 | G-11 |
| W081 | G-7 |




AM-32 BOARD (SIDE B)



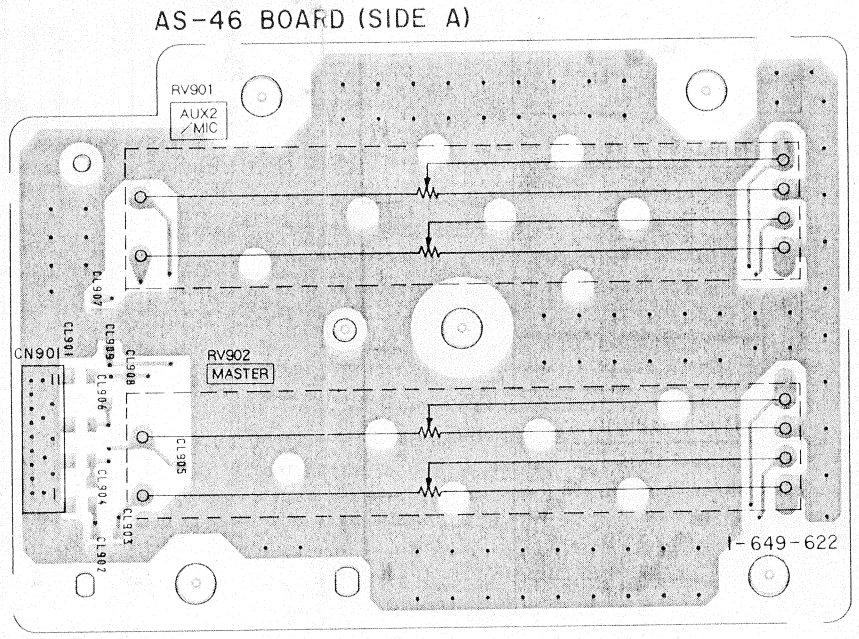

MJ-65 BOARD (SIDE B)




I-649-621

12

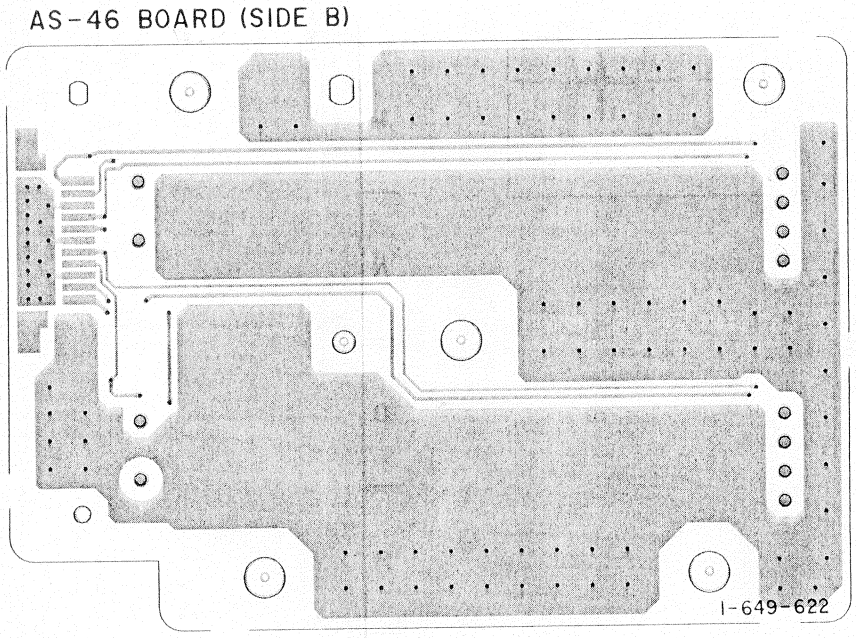
AS-46 BOARD (SIDE A)




I-649-622

11

AS-46 BOARD (SIDE B)



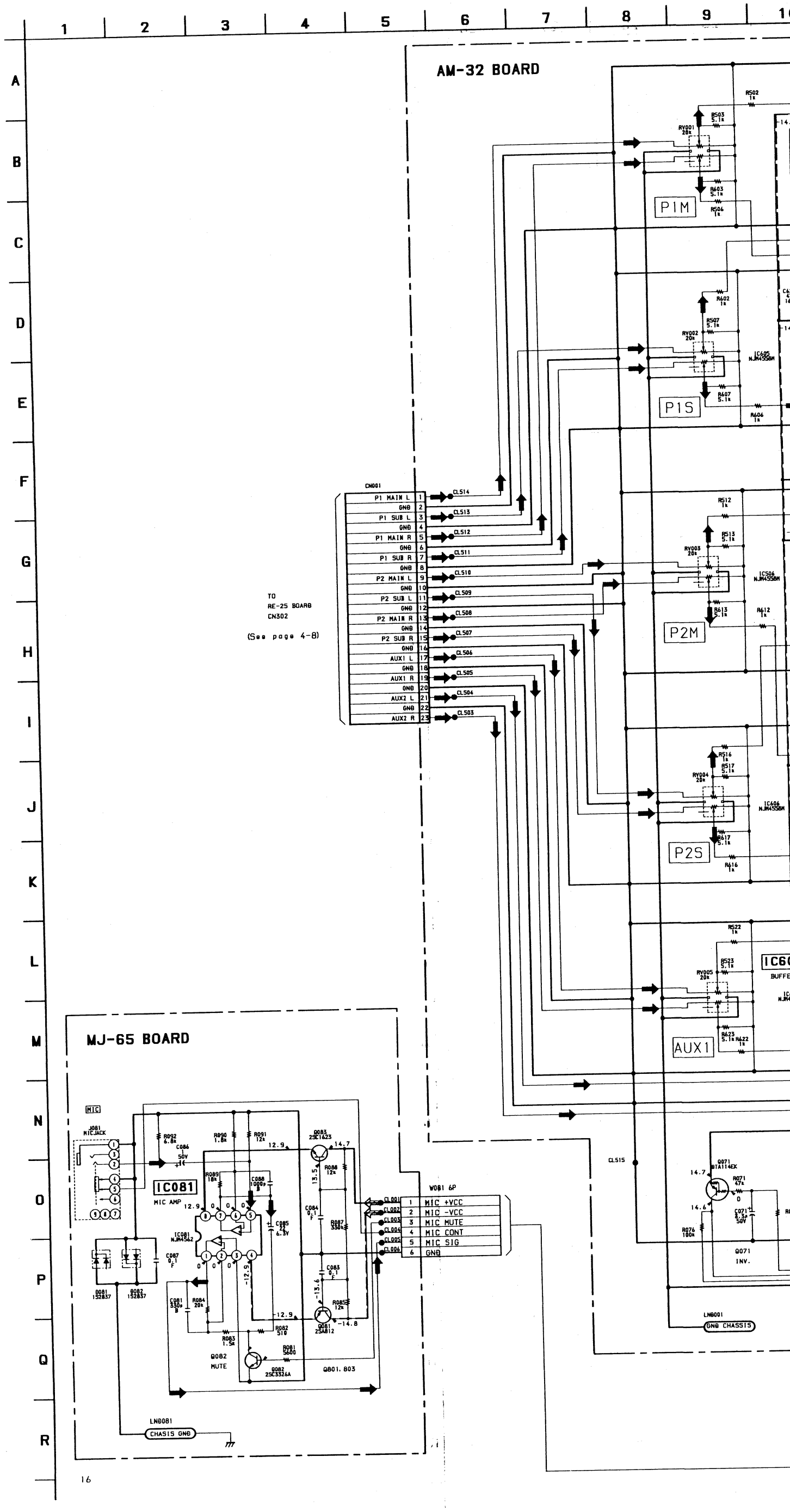
I-649-622

11

17 18 19 20 21 22 23

## AM-32 (AUDIO) /MJ-65 (MIC JACK) /AS-46 (VOLUME) SCHEMATIC DIAGRAM

– Ref No. AM-32 BOARD : 1,000/ MJ-65 BOARD : 3,000/ AS-46 BOARD : 1,000 Seriese –




16

● **SIGNAL PATH (ANALOG)**

| VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|
| CHROMA | Y | Y/CHROMA | ➡ |
| | | | |

4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19

## AM-32 BOARD

IC505 BUFFER
IC507 AMP
IC510 INPUT SELECT
IC605 BUFFER
IC509 AMP
IC511 INPUT SELECT
IC506 BUFFER
IC516 REC/PGM SELECT
IC518 MONITOR OUTPUT SELECT
IC606 BUFFER
IC616 REC/PGM SELECT
IC004 BUFFER
IC603 BUFFER
IC071 AUX/MIC SELECT
IC001 INV.
IC072 AUX/MIC SELECT
Q001-004 INV.
Q005-007 INV.
Q071 INV.
Q072 INV.

P1M
P1S
P2M
P2S
AUX1
AUX2
MIC

CN001
P1 MAIN L 1
GNB 2
P1 SUB L 3
GNB 4
P1 MAIN R 5
GNB 6
P1 SUB R 7
GNB 8
P2 MAIN L 9
GNB 10
P2 SUB L 11
GNB 12
P2 MAIN R 13
GNB 14
P2 SUB R 15
GNB 16
AUX1 L 17
GNB 18
AUX1 R 19
GNB 20
AUX2 L 21
GNB 22
AUX2 R 23

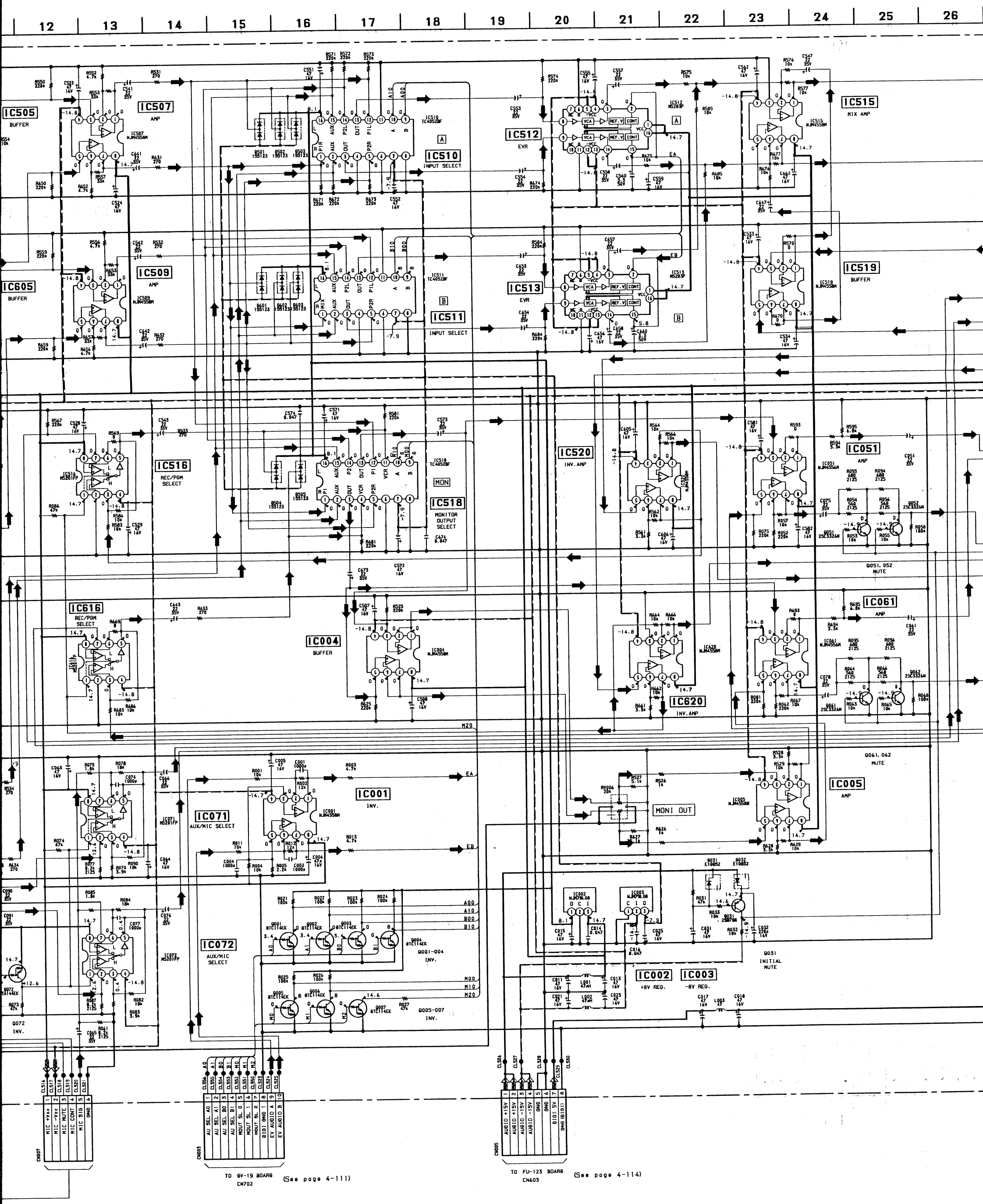
W081 6P
1 MIC +VCC
2 MIC -VCC
3 MIC MUTE
4 MIC CONT
5 MIC SIG
6 GNB

CN007
MIC +Vcc
MIC -Vcc
MIC MUTE
MIC CONT
MIC SIG
GND

CN003
AU SEL A0
AU SEL A1
AU SEL B0
AU SEL B1
MOUT SL 0
MOUT SL 1
MOUT SL 2
B101 GND 1
EV AUDIO A
EV AUDIO B

TO 8V-19 BOARD CN702

(See page 4-111)


12
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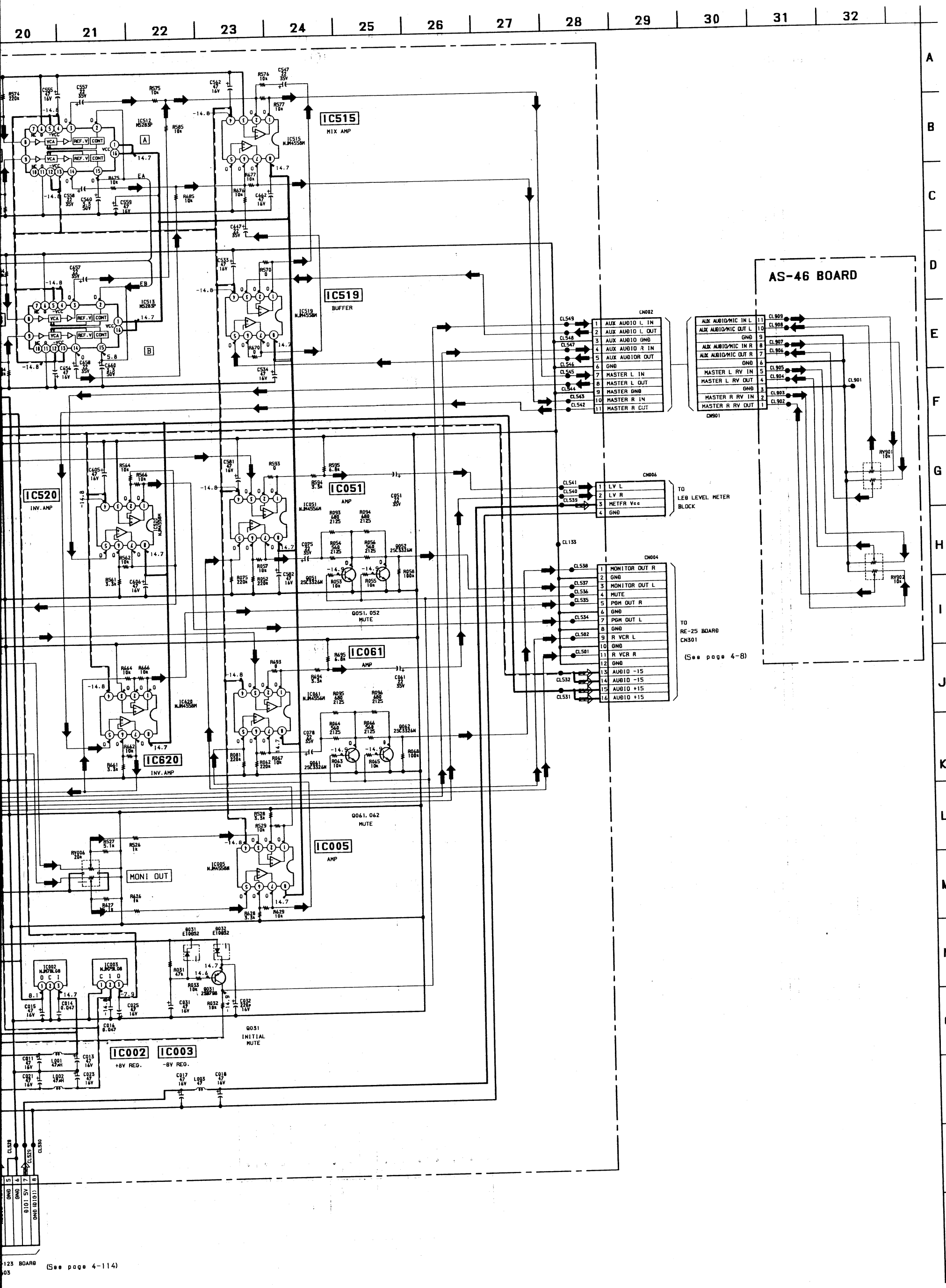
21
22
23
24
25
26
IC505
BUFFER
IC507
AMP
IC509
AMP
IC605
BUFFER
IC510
INPUT SELECT
IC511
INPUT SELECT
IC512
EVR
IC513
EVR
IC515
MIX AMP
IC519
BUFFER
IC516
REC/PGM SELECT
IC518
MONITOR OUTPUT SELECT
MON
IC520
INV. AMP
IC051
AMP
Q051, 052
MUTE
IC616
REC/PGM SELECT
IC004
BUFFER
IC620
INV. AMP
IC061
AMP
Q061, 062
MUTE
IC005
AMP
IC001
INV.
IC071
AUX/MIC SELECT
IC072
AUX/MIC SELECT
Q001-004
INV.
Q005-007
INV.
Q072
INV.
Q031
INITIAL MUTE
IC002
+8V REG.
IC003
-8V REG.
MONI OUT
EA
EB
M20
CN007
MIC +Vcc
MIC -Vcc
MIC MUTE
MIC CONT
MIC SIG
GND
CN003
AU SEL A0
AU SEL A1
AU SEL B0
AU SEL B1
MOUT SL 0
MOUT SL 1
MOUT SL 2
B101 GND
EV AUDIO A
EV AUDIO B
TO 8V-19 BOARD
CN702
(See page 4-111)
CN005
AUDIO +15V
AUDIO +15V
AUDIO -15V
AUDIO -15V
GND
GND
B101 5V
GND (B101)
TO FU-123 BOARD
CN603
(See page 4-114)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A
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D
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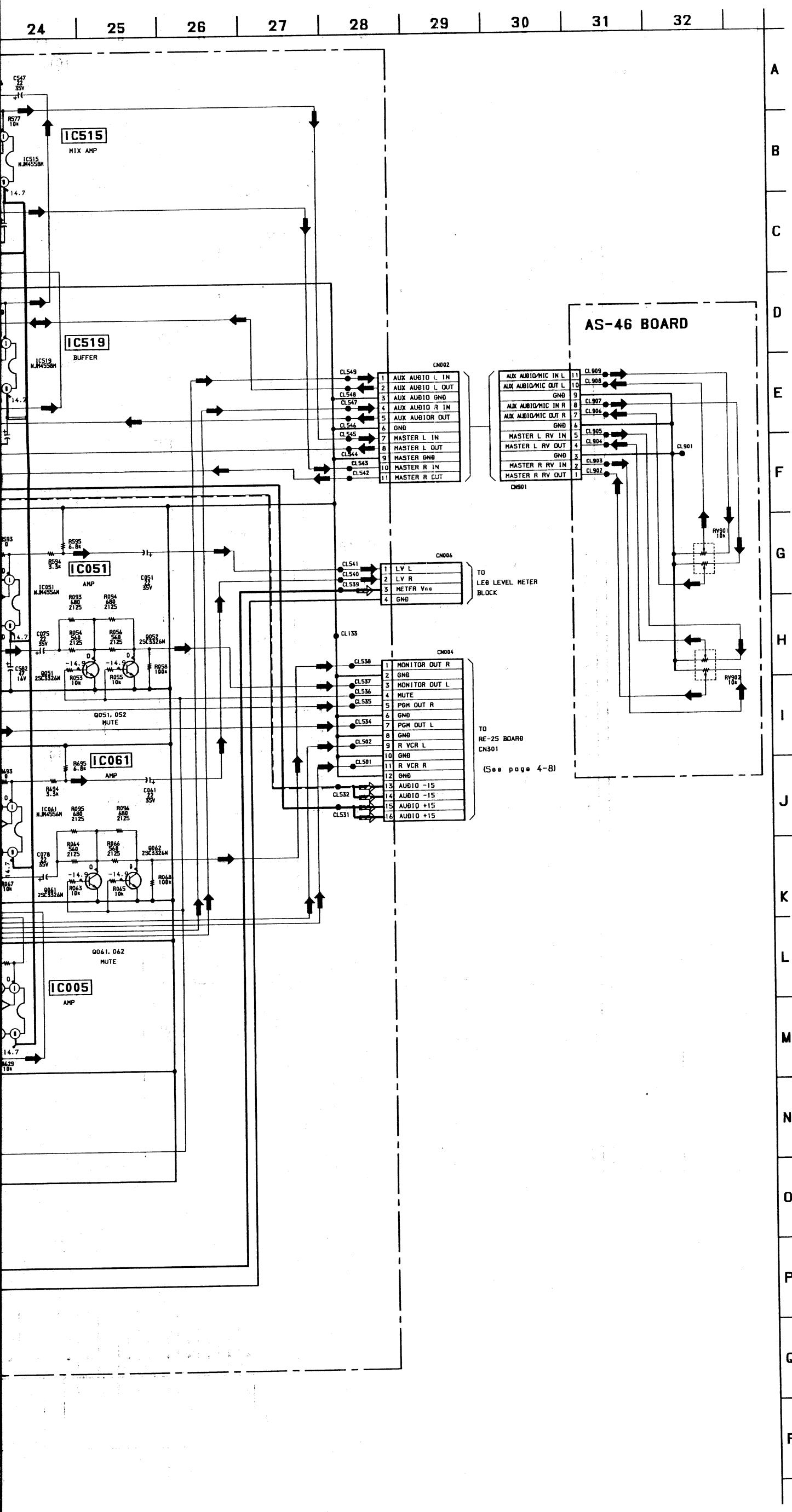
K
L
M
N
O
P
Q
R
IC515
MIX AMP
IC519
BUFFER
IC520
INV. AMP
IC051
AMP
IC061
AMP
IC620
INV. AMP
IC005
AMP
IC002
+8V REG.
IC003
-8V REG.
Q051. 052
MUTE
Q061. 062
MUTE
Q031
INITIAL
MUTE
MONI OUT
AS-46 BOARD
CN002
CL549
1 AUX AUDIO L IN
2 AUX AUDIO L OUT
3 AUX AUDIO GND
4 AUX AUDIO R IN
5 AUX AUDIOR OUT
6 GND
7 MASTER L IN
8 MASTER L OUT
9 MASTER GND
10 MASTER R IN
11 MASTER R OUT
CN901
AUX AUDIO/MIC IN L 11
AUX AUDIO/MIC OUT L 10
GND 9
AUX AUDIO/MIC IN R 8
AUX AUDIO/MIC OUT R 7
GND 6
MASTER L RV IN 5
MASTER L RV OUT 4
GND 3
MASTER R RV IN 2
MASTER R RV OUT 1
CL901
CL902
CL903
CL904
CL905
CL906
CL907
CL908
CL909
RV901 10k
RV902 10k
CN006
CL541
CL540
CL539
1 LV L
2 LV R
3 METER Vcc
4 GND
TO
LEB LEVEL METER
BLOCK
CL133
CN004
CL538
CL537
CL536
CL535
CL534
CL502
CL501
CL532
CL531
1 MONITOR OUT R
2 GND
3 MONITOR OUT L
4 MUTE
5 PGM OUT R
6 GND
7 PGM OUT L
8 GND
9 R VCR L
10 GND
11 R VCR R
12 GND
13 AUDIO -15
14 AUDIO -15
15 AUDIO +15
16 AUDIO +15
TO
RE-25 BOARD
CN301
(See page 4-8)
CL528
CL529
CL530
5 GND
6 GND
7 B(G) 5V
8 GND (B(G))
123 BOARD
(See page 4-114)

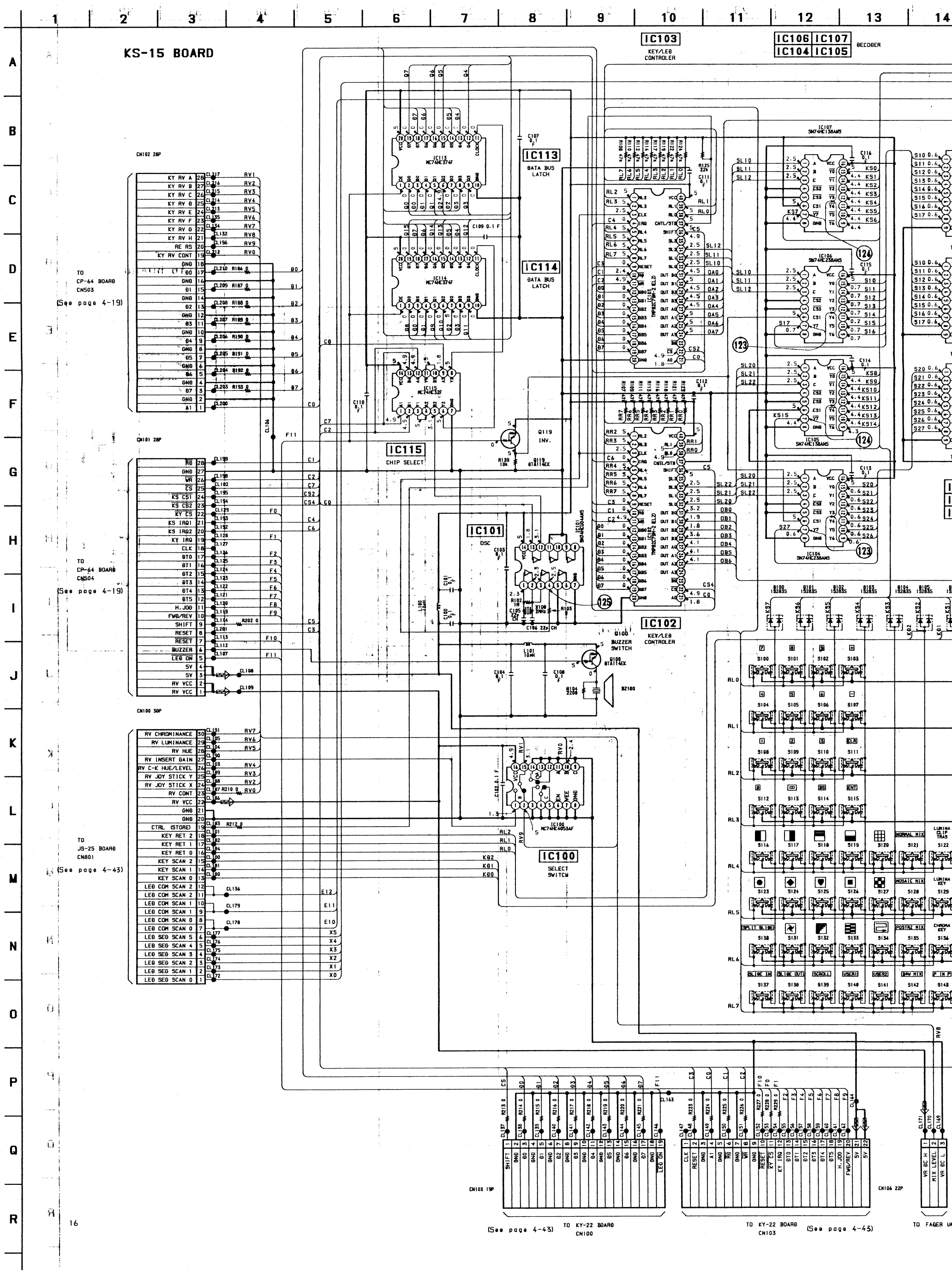


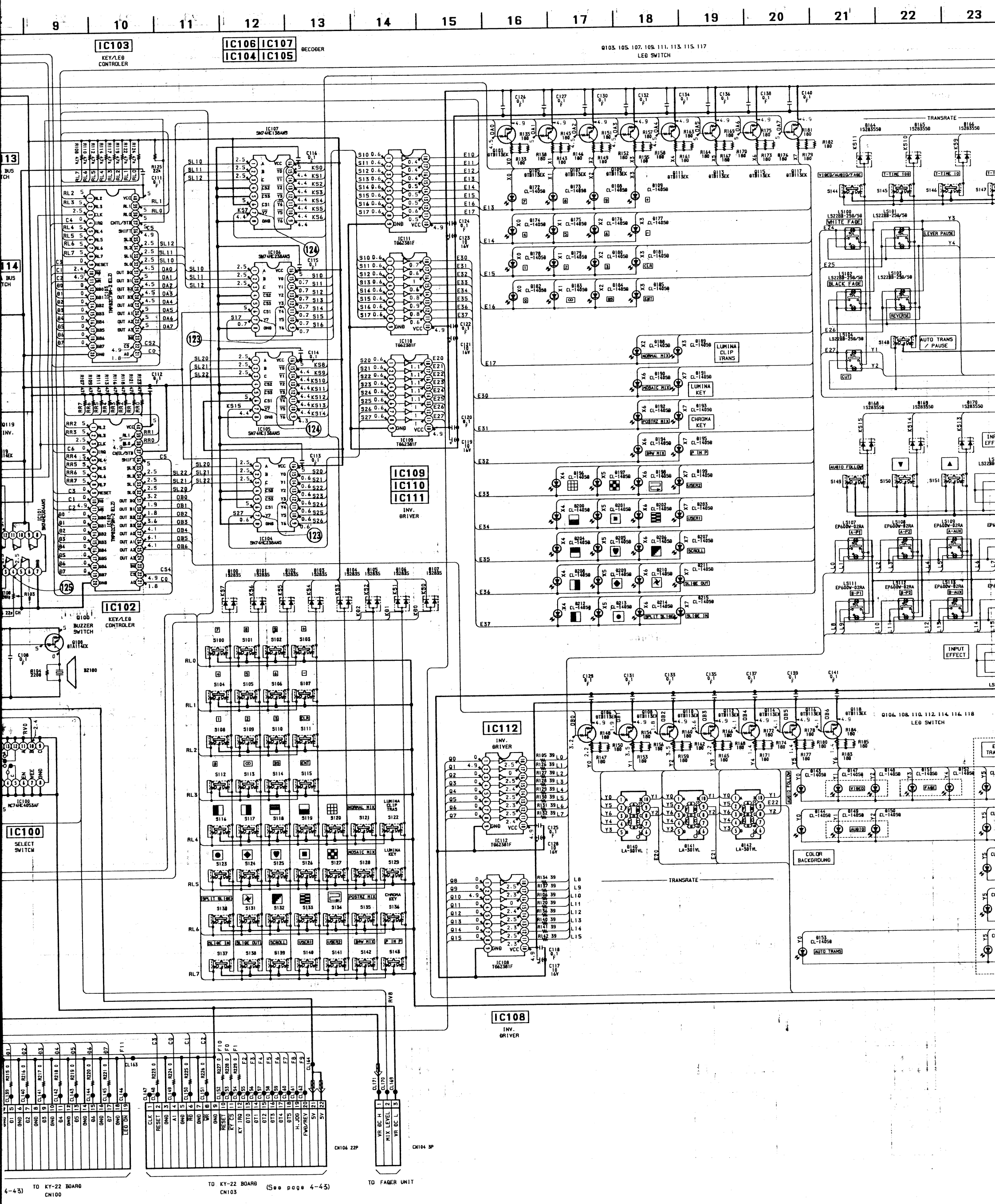


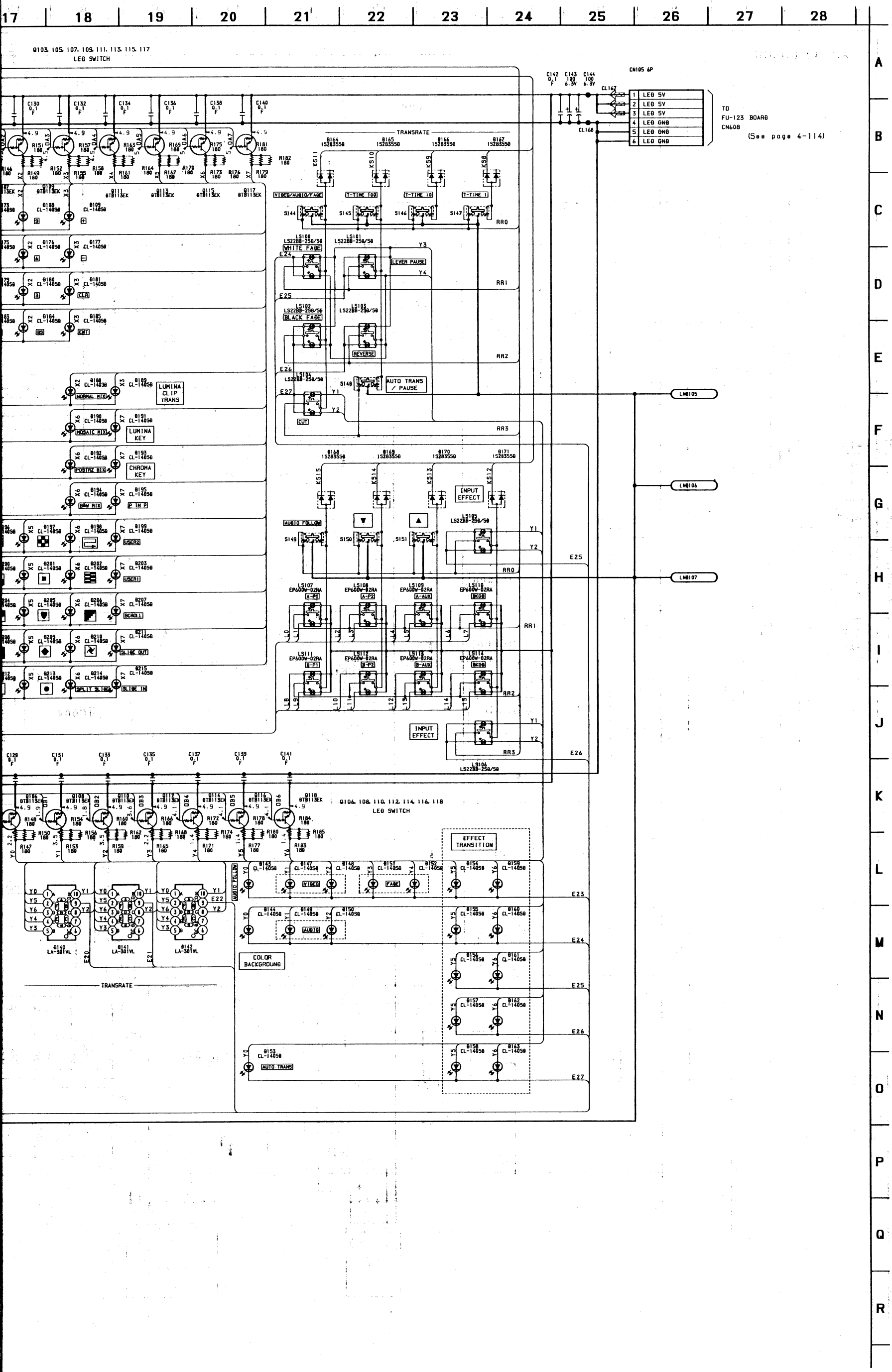

AUDIO / MIC JACK / VOLUME

## KS-15 (KEY SEG) SCHEMATIC DIAGRAM

– Ref No. KS-15 BOARD : 3,000 Seriese –




IC103
KEY/LED CONTROLER
IC106 IC107
IC104 IC105
DECODER
Q103, 105, 107, 109, 111, 113, 115, 117
LED SWITCH
IC102
KEY/LED CONTROLER
IC109
IC110
IC111
INV. DRIVER
IC112
INV. DRIVER
IC108
INV. DRIVER
IC100
SELECT SWITCH
Q100
BUZZER SWITCH
BZ100
TRANSRATE
INPUT EFFECT
LEVER PAUSE
REVERSE
AUTO TRANS / PAUSE
CUT
WHITE FADE
BLACK FADE
VIDEO
FADE
AUDIO
AUTO TRANS
COLOR BACKGROUND
LUMINA CLIP TRANS
LUMINA KEY
CHROMA KEY
NORMAL MIX
MOSAIC MIX
POSTRZ MIX
P IN P
B&W MIX
SLIDE IN
SLIDE OUT
SCROLL
USER1
USER2
TO KY-22 BOARD CN100
TO KY-22 BOARD CN103
(See page 4-43)
TO FADER UNIT
CN106 22P
CN104 3P


17
18
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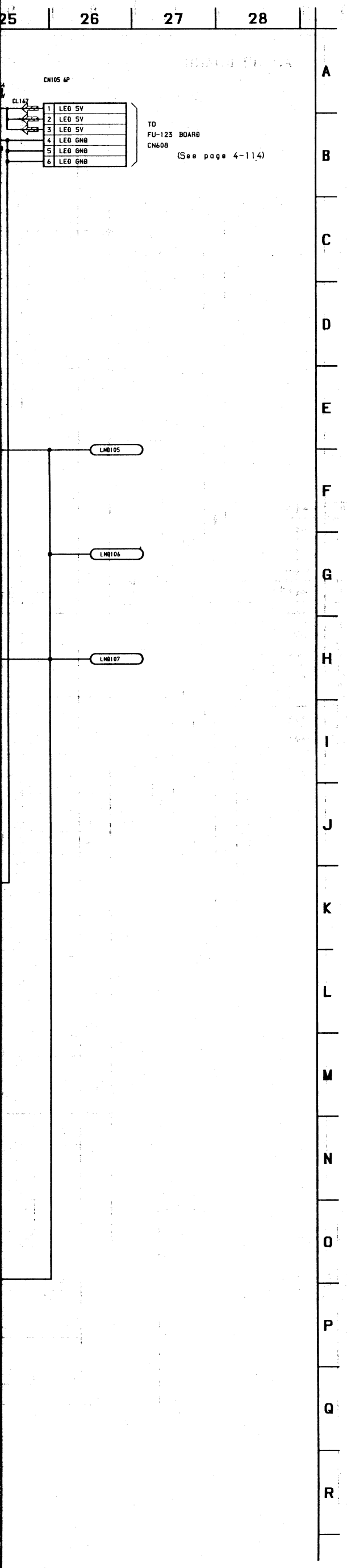
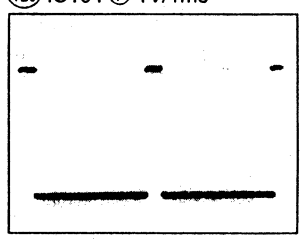
H
I
J
K
L
M
N
O
P
Q
R
Q103. 105. 107. 109. 111. 113. 115. 117
LED SWITCH
CN105 6P
1 LED 5V
2 LED 5V
3 LED 5V
4 LED GND
5 LED GND
6 LED GND
TO
FU-123 BOARD
CN608
(See page 4-114)
TRANSRATE
VIDEO/AUDIO/FADE
T-TIME 100
T-TIME 10
T-TIME 1
WHITE FADE
BLACK FADE
LEVER PAUSE
REVERSE
AUTO TRANS / PAUSE
CUT
INPUT EFFECT
AUDIO FOLLOW
A-P1
A-P2
A-AUX
B-P1
B-P2
B-AUX
BKGD
LUMINA CLIP TRANS
LUMINA KEY
CHROMA KEY
USER2
USER1
SCROLL
SLIDE OUT
SLIDE IN
LA-30IVL
COLOR BACKGROUND
AUTO TRANS
EFFECT TRANSITION
Q106. 108. 110. 112. 114. 116. 118
LED SWITCH
LN8105
LN8106
LN8107

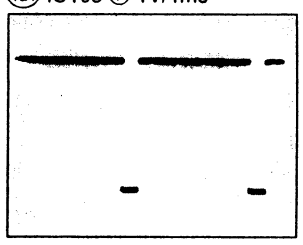



KS-15 board

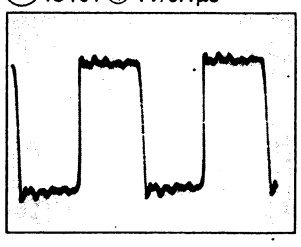
(123) IC104 ⑦ 1V/1ms



(124) IC105 ⑦ 1V/1ms



(125) IC101 ④ 1V/0.1μs



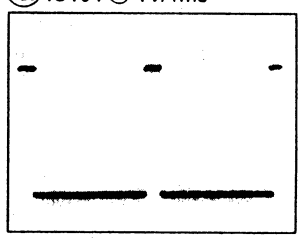
28

RB

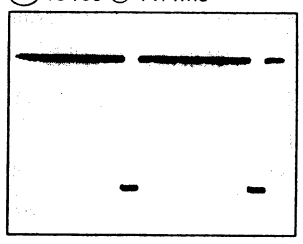
page 4-114)

KS-15 board

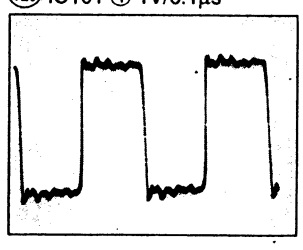
(123) IC104 ⑦ 1V/1ms



(124) IC105 ⑦ 1V/1ms



(125) IC101 ④ 1V/0.1µs

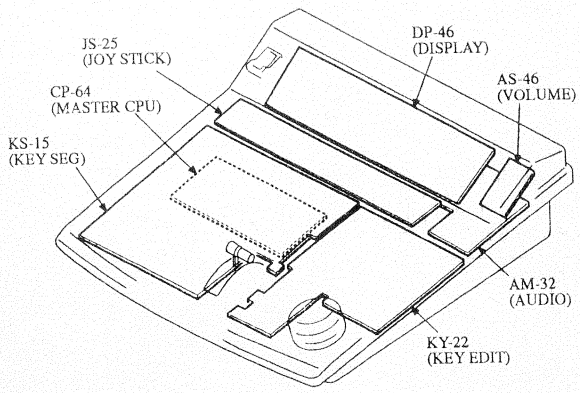


## KS-15 (KEY SEG) PRINTED WIRING BOARD

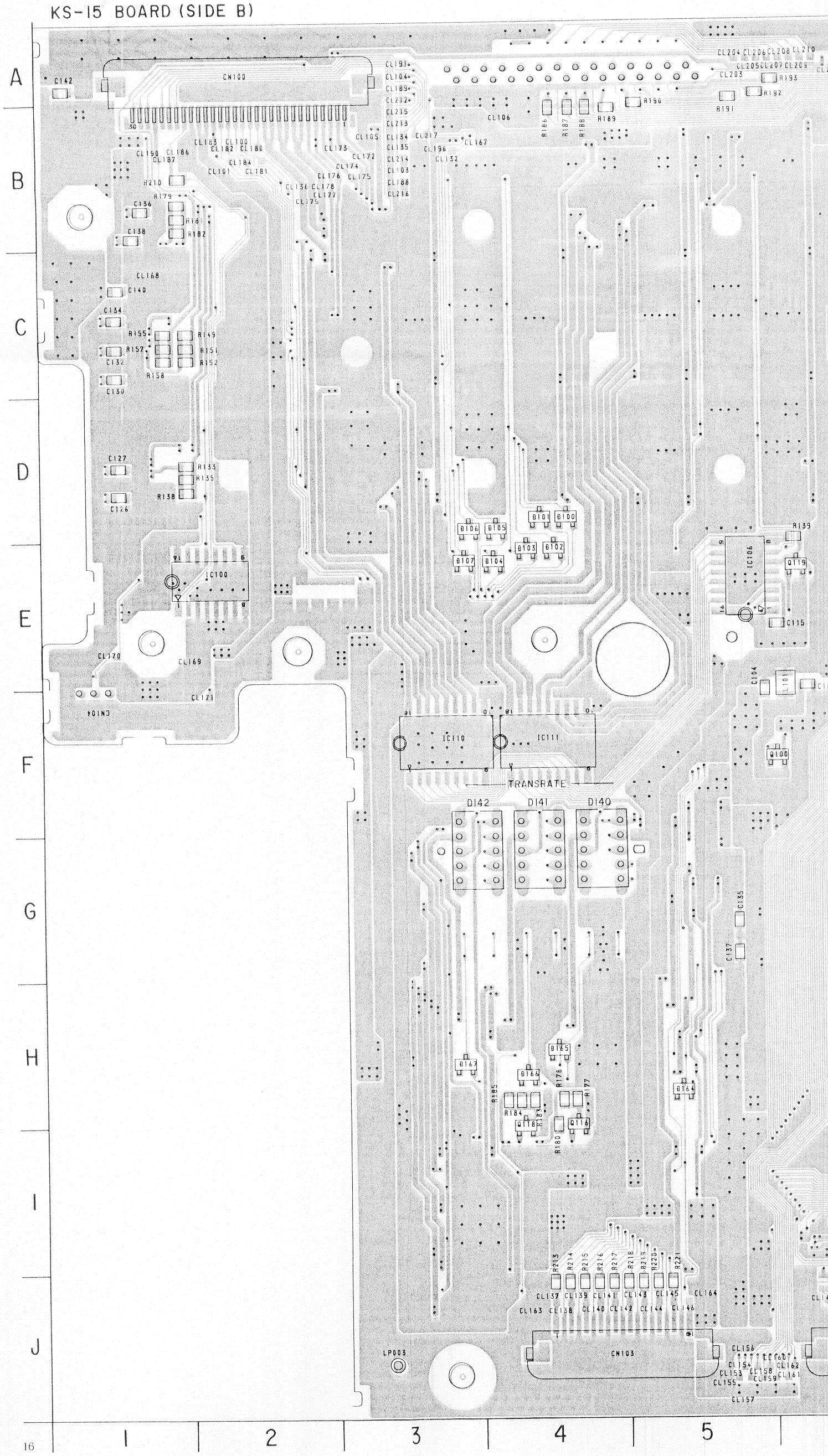
– Ref No. KS-15 BOARD : 3,000 Seriese –

### KS-15 BOARD

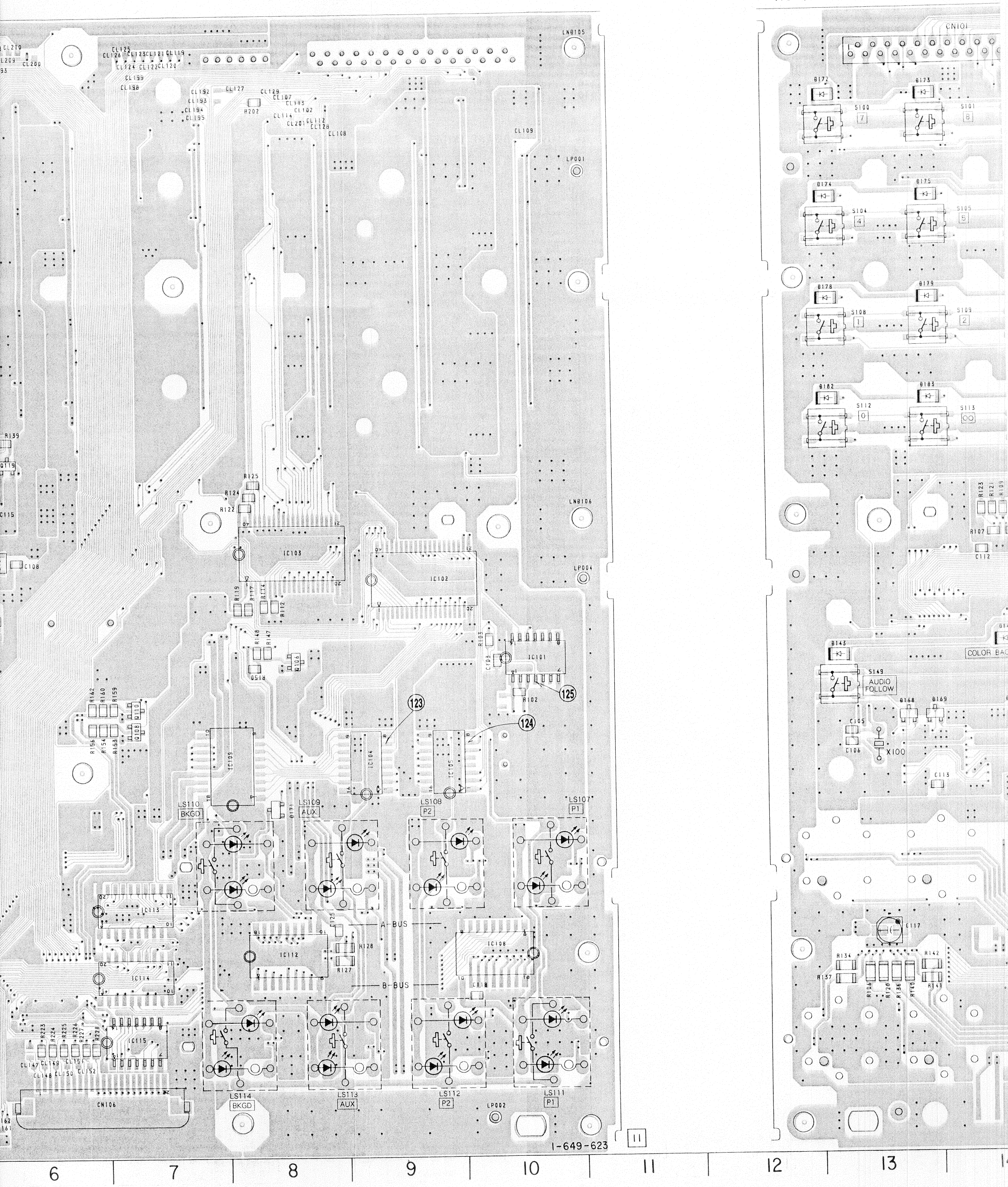
| | | | |
|---|---|---|---|
| CN100 | A-2 | D190 | C-21 |
| CN101 | A-14 | D191 | C-21 |
| CN102 | A-18 | D192 | C-21 |
| CN103 | J-4 | D193 | C-21 |
| CN104 | F-22 | D194 | D-21 |
| CN105 | A-15 | D195 | D-21 |
| CN106 | J-6 | D196 | B-20 |
| | | D197 | B-20 |
| D100 | D-4 | D198 | C-20 |
| D101 | D-4 | D199 | D-20 |
| D102 | E-4 | D200 | B-19 |
| D103 | E-4 | D201 | B-19 |
| D104 | E-4 | D202 | C-19 |
| D105 | D-4 | D203 | D-19 |
| D106 | D-3 | D204 | B-18 |
| D107 | E-7 | D205 | C-18 |
| D108 | B-14 | D206 | C-18 |
| D109 | B-15 | D207 | D-18 |
| D140 | F-4 | D208 | B-17 |
| D141 | F-4 | D209 | B-17 |
| D142 | F-3 | D210 | C-17 |
| D143 | F-13 | D211 | D-17 |
| D144 | F-14 | D212 | B-16 |
| D147 | F-17 | D213 | C-16 |
| D148 | F-18 | D214 | C-16 |
| D149 | G-17 | D215 | D-16 |
| D150 | G-18 | | |
| D151 | G-17 | IC100 | E-1 |
| D152 | G-18 | IC101 | F-10 |
| D153 | J-19 | IC102 | F-9 |
| D154 | G-20 | IC103 | E-8 |
| D155 | G-20 | IC104 | G-9 |
| D156 | G-20 | IC105 | G-9 |
| D157 | H-20 | IC106 | E-5 |
| D158 | H-20 | IC107 | E-19 |
| D159 | H-20 | IC108 | I-10 |
| D160 | I-20 | IC109 | G-7 |
| D161 | I-20 | IC110 | F-3 |
| D162 | I-20 | IC111 | F-4 |
| D163 | J-20 | IC112 | I-8 |
| D164 | H-5 | IC113 | H-7 |
| D165 | H-4 | IC114 | I-7 |
| D166 | H-4 | IC115 | J-7 |
| D167 | H-3 | | |
| D168 | G-13 | Q100 | F-6 |
| D169 | G-13 | Q103 | D-22 |
| D170 | G-14 | Q105 | D-22 |
| D171 | H-8 | Q106 | F-8 |
| D172 | B-13 | Q107 | C-22 |
| D173 | B-13 | Q108 | G-7 |
| D174 | C-13 | Q109 | C-22 |
| D175 | C-13 | Q110 | G-7 |
| D176 | C-14 | Q111 | C-22 |
| D177 | B-15 | Q112 | G-17 |
| D178 | D-13 | Q113 | B-22 |
| D179 | C-13 | Q114 | G-17 |
| D180 | C-14 | Q115 | B-22 |
| D181 | C-15 | Q116 | I-4 |
| D182 | D-13 | Q117 | C-22 |
| D183 | D-13 | Q118 | I-4 |
| D184 | D-14 | Q119 | E-6 |
| D185 | D-15 | | |
| D188 | B-21 | | |
| D189 | B-21 | | |



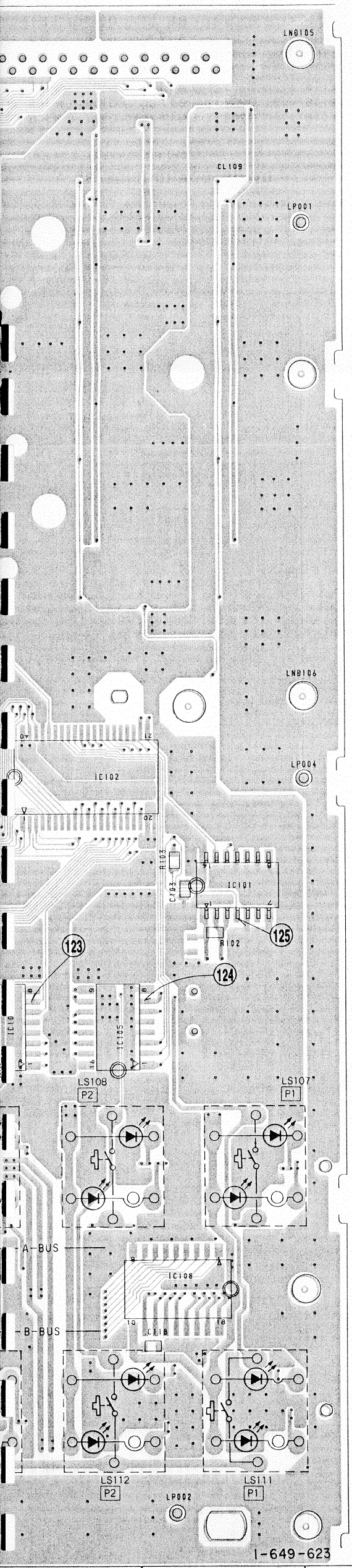

KS-15 BOARD (SIDE B)

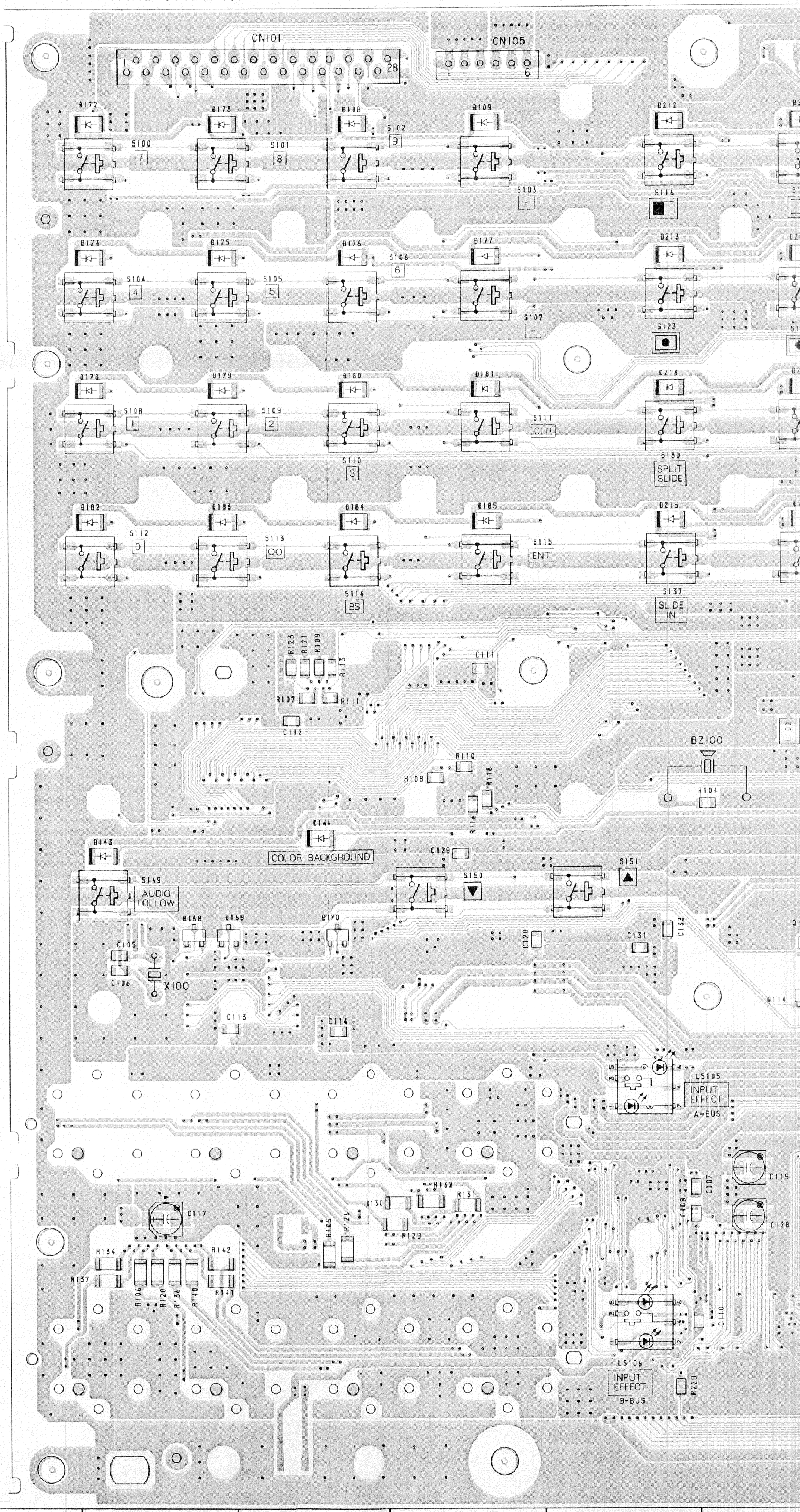


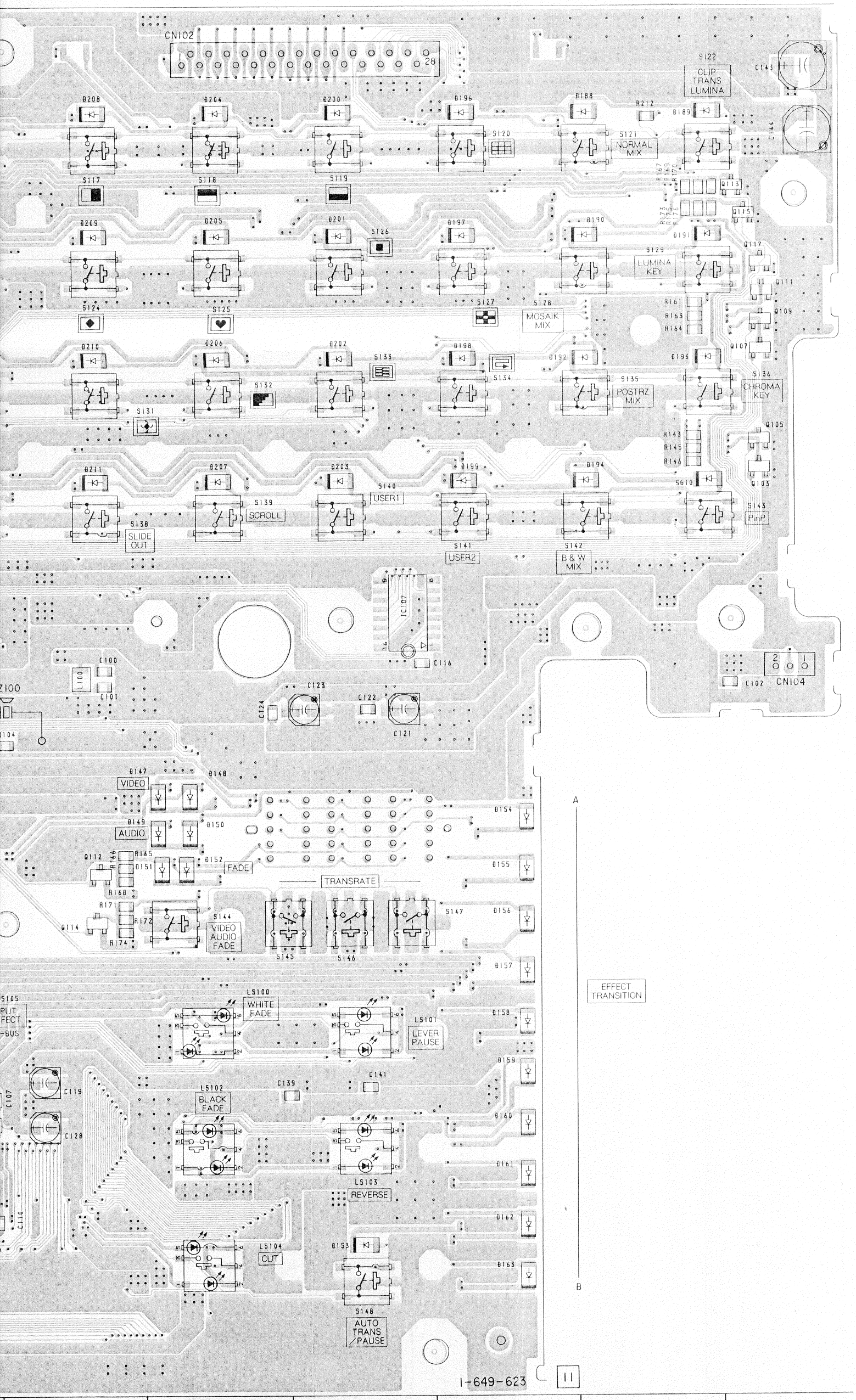
# KS-15 BOARD (SIDE A)



## KS-15 BOARD (SIDE A)




CN102
1
28
D208
D204
D200
D196
D188
S120
S121
NORMAL MIX
S122
CLIP TRANS LUMINA
C143
C144
R212
D189
S117
S118
S119
R167
R169
R170
Q113
Q115
D209
D205
D201
S126
D197
D190
D191
Q117
S129
LUMINA KEY
Q111
S124
S125
S127
S128
MOSAIK MIX
R161
R163
R164
Q109
D210
D206
D202
S133
D198
D192
D193
Q107
S136
CHROMA KEY
S132
S134
S135
POSTRZ MIX
S131
Q105
R143
R145
R146
D211
D207
D203
S140
USER1
D199
D194
S610
Q103
S143
PinP
S139
SCROLL
S138
SLIDE OUT
S141
USER2
S142
B & W MIX
IC102
C116
C100
C101
L100
C123
C124
C122
C121
CN104
C102
D147
VIDEO
D148
D149
AUDIO
D150
D154
Q112
R165
R166
D151
D152
FADE
D155
TRANSRATE
R168
R171
R172
Q114
R174
S144
VIDEO AUDIO FADE
S145
S146
S147
D156
D157
LS100
WHITE FADE
LS101
LEVER PAUSE
D158
D159
C141
C139
C119
C128
C107
LS102
BLACK FADE
D160
D161
LS103
REVERSE
C110
D162
LS104
CUT
D153
D163
S148
AUTO TRANS /PAUSE
S105
PUT
FECT
-BUS
EFFECT TRANSITION
A
B
I-649-623
11
17
18
19
20
21
22





KEY SEG

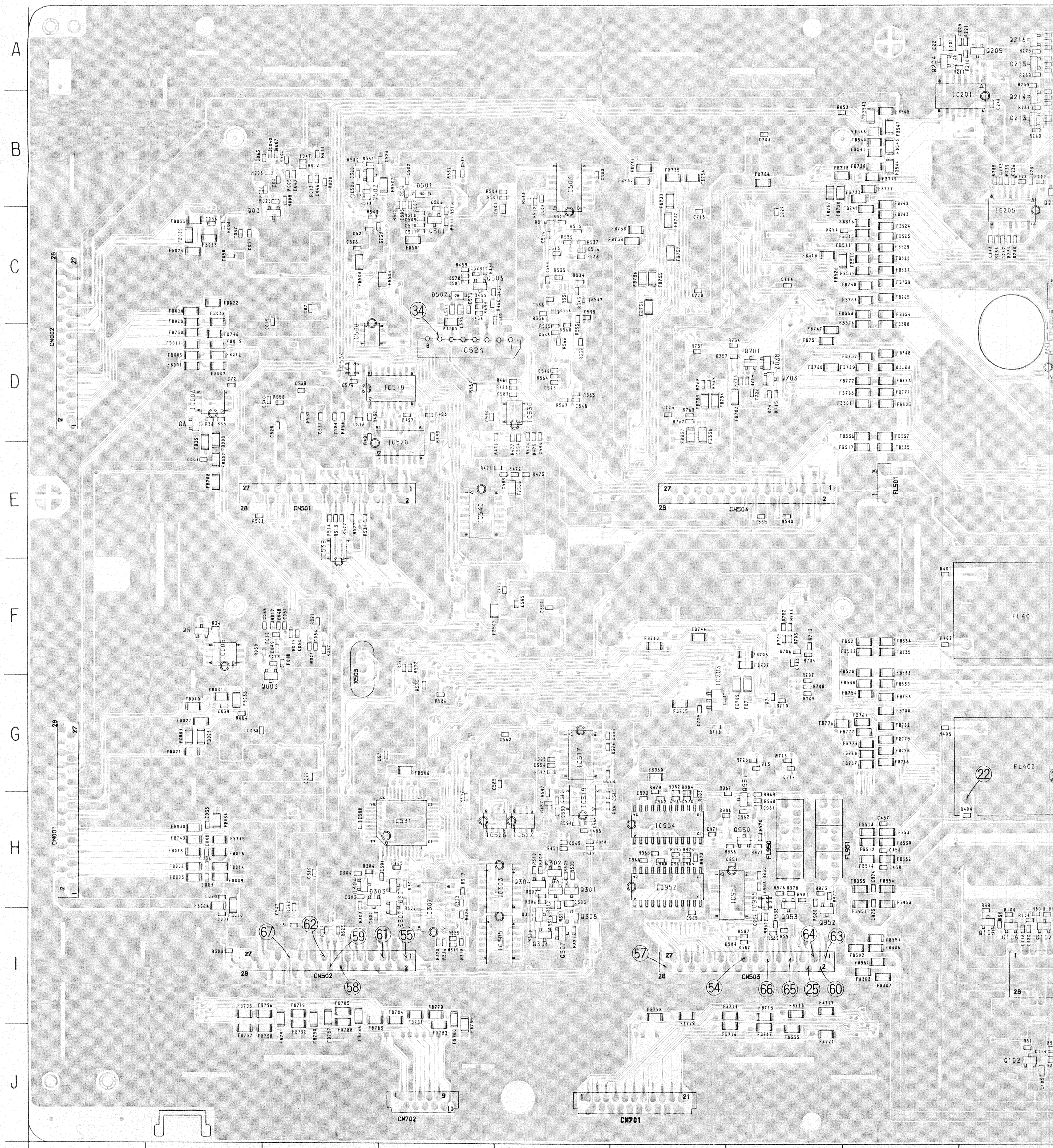
## DV-19 BOARD

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CN001 | G-1 | D102 | H-18 | IC004 | G-24 | IC203 | B-10 | IC404 | F-10 | IC512 | H-25 | IC527 | H-5 |
| CN002 | C-1 | D103 | I-16 | IC005 | F-2I | IC204 | B-10I | IC405 | F-10 | IC513 | H-25 | IC528 | D-24 |
| CN201 | A-10 | D104 | H-18 | C006 | D-2 | C205 | C-9 | IC406 | G-10 | IC514 | D-22 | IC529 | G-23 |
| CN501 | E-3 | D301 | H-4 | IC101 | I-18 | IC206 | B-10 | IC407 | H-10 | IC515 | G-22 | IC530 | D-5 |
| CN502 | I-3 | D302 | H-4 | IC102 | J-17 | IC207 | C-18 | IC501 | B-22 | IC516 | F-23 | IC531 | H-4 |
| CN503 | I-7 | D303 | H-3 | IC103 | J-18 | IC301 | H-24 | IC502 | D-22 | IC517 | G-5 | IC532 | D-23 |
| CN504 | E-6 | D304 | H-3 | IC104 | I-9 | IC302 | H-23 | IC503 | B-5 | IC518 | D-4 | IC533 | E-23 |
| CN601 | A-12 | D305 | I-22 | IC105 | J-10 | IC303 | H-5 | IC504 | B-24 | IC519 | H-5 | IC534 | D-3 |
| CN602 | D-13 | D501 | B-4 | IC106 | J-10 | IC304 | H-22 | IC505 | C-22 | IC520 | E-4 | IC535 | F-22 |
| CN701 | J-6 | D502 | C-4 | IC107 | I-10 | IC305 | I-5 | IC506 | C-22 | IC521 | H-22 | IC536 | E-23 |
| CN702 | J-4 | D602 | E-17 | IC108 | J-11 | IC307 | H-4 | IC507 | C-24 | IC522 | G-23 | IC537 | D-23 |
| | | | | IC109 | I-10 | IC308 | H-23 | IC508 | D-3 | IC523 | D-24 | IC539 | E-3 |
| D001 | F-24 | IC001 | D-24 | IC110 | I-16 | IC401 | G-18 | IC509 | D-24 | IC524 | D-4 | IC540 | E-5 |
| D002 | B-24 | IC002 | G-24 | IC201 | A-9 | IC402 | G-18 | IC510 | D-25 | IC525 | G-23 | IC541 | E-23 |
| D101 | J-16 | IC003 | C-24 | IC202 | C-19 | IC403 | H-17 | IC511 | G-22 | IC526 | H-5 | IC542 | E-23 |

## DV-19 (VIDEO) PRINTED WIRING BOARD

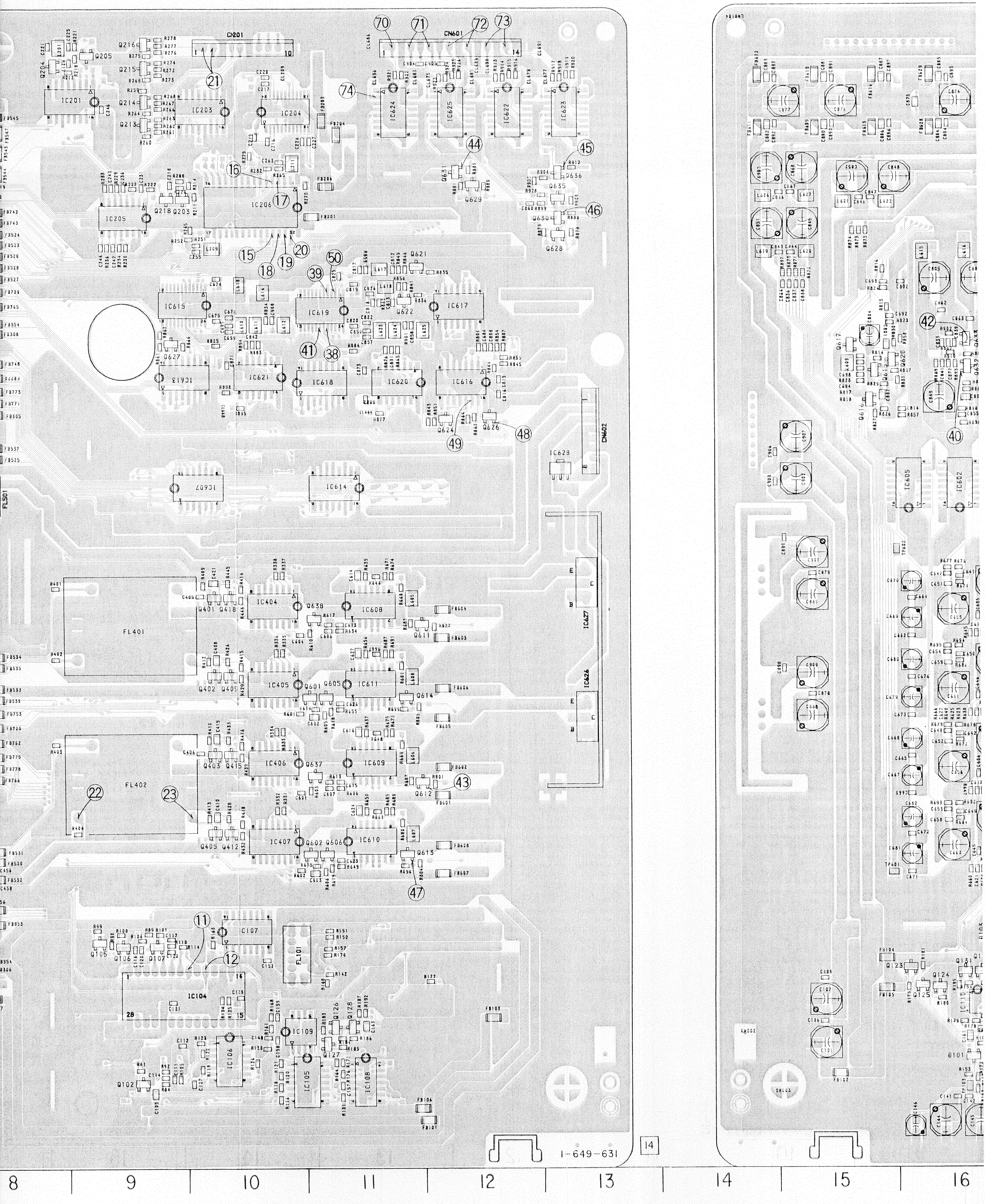
– Ref No. DV-19 BOARD : 7,000 Seriese –

DV-19 BOARD (SIDE A)



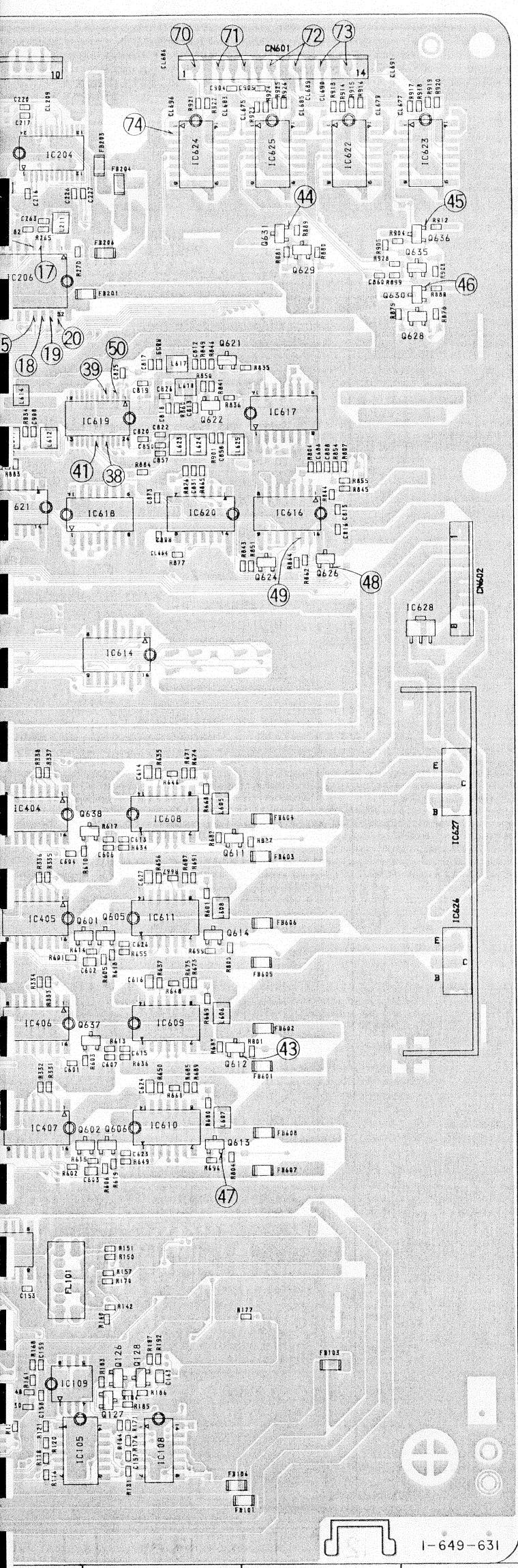
| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| H-25 | IC527 | H-5 | IC543 | E-23 | IC616 | D-12 | IC703 | G-6 | Q001 | C-3 | Q110 | J-17 | Q125 | I-16 | Q209 | A-18 |
| H-25 | IC528 | D-24 | IC602 | E-16 | IC617 | C-12 | IC704 | D-21 | Q002 | D-24 | Q111 | J-17 | Q126 | I-11 | Q210 | A-17 |
| D-22 | IC529 | G-23 | IC603 | E-17 | IC618 | D-11 | IC705 | C-21 | Q003 | G-3 | Q112 | J-17 | Q127 | I-11 | Q211 | A-18 |
| G-22 | IC530 | D-5 | IC604 | E-17 | IC619 | C-11 | IC706 | D-21 | Q004 | F-24 | Q113 | J-17 | Q128 | I-11 | Q212 | A-18 |
| F-23 | IC531 | H-4 | IC605 | E-16 | IC620 | D-11 | IC707 | C-21 | Q005 | F-2 | Q114 | J-17 | Q129 | I-16 | Q213 | B-9 |
| G-5 | IC532 | D-23 | IC606 | E-17 | IC621 | D-10 | IC709 | G-20 | Q006 | D-2 | Q115 | J-17 | Q130 | I-16 | Q214 | B-9 |
| D-4 | IC533 | E-23 | IC607 | E-10 | IC622 | B-12 | IC710 | G-20 | Q101 | J-18 | Q116 | H-17 | Q131 | I-16 | Q215 | A-9 |
| H-5 | IC534 | D-3 | IC608 | F-11 | IC623 | B-13 | IC711 | D-21 | Q102 | J-9 | Q117 | H-17 | Q201 | A-17 | Q216 | A-9 |
| E-4 | IC535 | F-22 | IC609 | G-11 | IC624 | B-11 | IC730 | F-21 | Q103 | J-18 | Q118 | J-16 | Q203 | B-9 | Q217 | B-17 |
| H-22 | IC536 | E-23 | IC610 | H-11 | IC625 | B-12 | IC950 | H-21 | Q104 | J-18 | Q119 | I-17 | Q202 | A-17 | Q218 | B-9 |
| G-23 | IC537 | D-23 | IC611 | F-11 | IC626 | G-13 | IC951 | H-7 | Q105 | I-9 | Q120 | H-16 | Q204 | A-8 | Q219 | B-17 |
| D-24 | IC539 | E-3 | IC612 | E-18 | IC627 | E-13 | IC952 | H-6 | Q106 | I-9 | Q121 | I-17 | Q205 | A-9 | Q301 | H-5 |
| D-4 | IC540 | E-5 | IC613 | D-9 | IC628 | E-13 | IC954 | H-6 | Q107 | I-9 | Q122 | I-16 | Q206 | A-19 | Q302 | H-5 |
| G-23 | IC541 | E-23 | IC614 | E-11 | IC629 | E-17 | IC955 | H-7 | Q108 | J-18 | Q123 | I-16 | Q207 | B-17 | Q303 | H-5 |
| H-5 | IC542 | E-23 | IC615 | C-9 | IC701 | B-20 | | | Q109 | J-17 | Q124 | I-16 | Q208 | B-17 | Q304 | H-5 |

DV-19 BOARD (SIDE B)

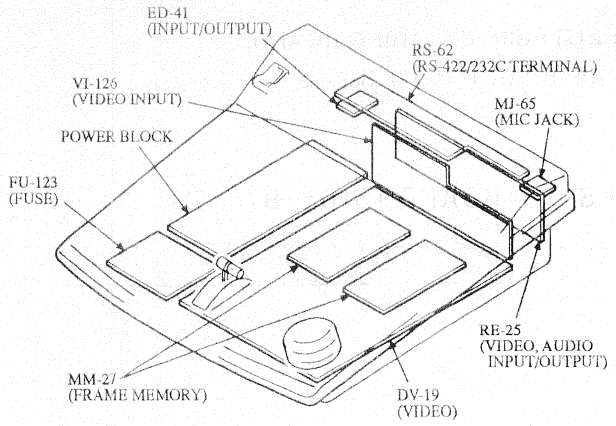


| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 3 | IC616 | D-12 | IC703 | G-6 | Q001 | C-3 | Q110 | J-17 | Q125 | I-16 | Q209 | A-18 | Q305 | I-5 | Q410 | G-17 | Q604 | H-17 | Q619 |
| 6 | IC617 | C-12 | IC704 | D-21 | Q002 | D-24 | Q111 | J-17 | Q126 | I-11 | Q210 | A-17 | Q306 | I-5 | Q411 | G-17 | Q605 | G-11 | Q620 |
| 7 | IC618 | D-11 | IC705 | C-21 | Q003 | G-3 | Q112 | J-17 | Q127 | I-11 | Q211 | A-18 | Q307 | I-5 | Q412 | H-10 | Q606 | H-11 | Q621 |
| 7 | IC619 | C-11 | IC706 | D-21 | Q004 | F-24 | Q113 | J-17 | Q128 | I-11 | Q212 | A-18 | Q308 | I-5 | Q413 | G-17 | Q607 | G-16 | Q622 |
| 6 | IC620 | D-11 | IC707 | C-21 | Q005 | F-2 | Q114 | J-17 | Q129 | I-16 | Q213 | B-9 | Q309 | I-22 | Q414 | G-17 | Q608 | H-16 | Q623 |
| 7 | IC621 | D-10 | IC709 | G-20 | Q006 | D-2 | Q115 | J-17 | Q130 | I-16 | Q214 | B-9 | Q310 | I-22 | Q415 | G-10 | Q609 | C-18 | Q624 |
| 0 | IC622 | B-12 | IC710 | G-20 | Q101 | J-18 | Q116 | H-17 | Q131 | I-16 | Q215 | A-9 | Q401 | F-10 | Q416 | G-17 | Q610 | D-18 | Q625 |
| 1 | IC623 | B-13 | IC711 | D-21 | Q102 | J-9 | Q117 | H-17 | Q201 | A-17 | Q216 | A-9 | Q402 | F-10 | Q417 | F-17 | Q611 | F-11 | Q626 |
| 1 | IC624 | B-11 | IC730 | F-21 | Q103 | J-18 | Q118 | J-16 | Q203 | B-9 | Q217 | B-17 | Q403 | G-10 | Q418 | F-10 | Q612 | G-11 | Q627 |
| 1 | IC625 | B-12 | IC950 | H-21 | Q104 | J-18 | Q119 | I-17 | Q202 | A-17 | Q218 | B-9 | Q404 | G-17 | Q501 | C-4 | Q613 | H-11 | Q628 |
| 1 | IC626 | G-13 | IC951 | H-7 | Q105 | I-9 | Q120 | H-16 | Q204 | A-8 | Q219 | B-17 | Q405 | H-10 | Q502 | B-4Q | Q614 | G-11 | Q629 |
| 8 | IC627 | E-13 | IC952 | H-6 | Q106 | I-9 | Q121 | I-17 | Q205 | A-9 | Q301 | H-5 | Q406 | F-17 | 503 | C-4 | Q615 | D-15 | Q630 |
| 9 | IC628 | E-13 | IC954 | H-6 | Q107 | I-9 | Q122 | I-16 | Q206 | A-19 | Q302 | H-5 | Q407 | G-17 | Q601 | G-11 | Q616 | D-15 | Q631 |
| 1 | IC629 | E-17 | IC955 | H-7 | Q108 | J-18 | Q123 | I-16 | Q207 | B-17 | Q303 | H-5 | Q408 | H-17 | Q602 | H-11 | Q617 | D-15 | Q632 |
| 9 | IC701 | B-20 | | | Q109 | J-17 | Q124 | I-16 | Q208 | B-17 | Q304 | H-5 | Q409 | F-10 | Q603 | G-17 | Q618 | C-16 | Q633 |

DV-19 BOARD (SIDE B)



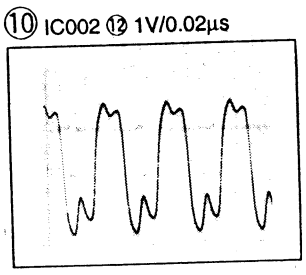
| | | | | | |
|---|---|---|---|---|---|
| Q619 | D-16 | Q634 | D-17 | Q953 | H-7 |
| Q620 | D-15 | Q635 | B-13 | | |
| Q621 | C-11 | Q636 | B-13 | | |
| Q622 | C-11 | Q637 | G-11 | | |
| Q623 | D-17 | Q638 | F-11 | | |
| Q624 | D-12 | Q639 | E-17 | | |
| Q625 | D-17 | Q640 | E-16 | | |
| Q626 | D-12 | Q641 | E-17 | | |
| Q627 | D-9 | Q642 | E-16 | | |
| Q628 | C-13 | Q701 | D-7 | | |
| Q629 | B-12 | Q702 | D-7 | | |
| Q630 | B-13 | Q703 | D-7 | | |
| Q631 | B-12 | Q950 | H-7 | | |
| Q632 | D-16 | Q951 | H-7 | | |
| Q633 | D-16 | Q952 | H-7 | | |



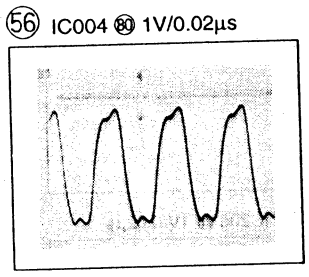
## DV-19 (1/7) (VIDEO (1/7) ) SCHEMATIC DIAGRAM

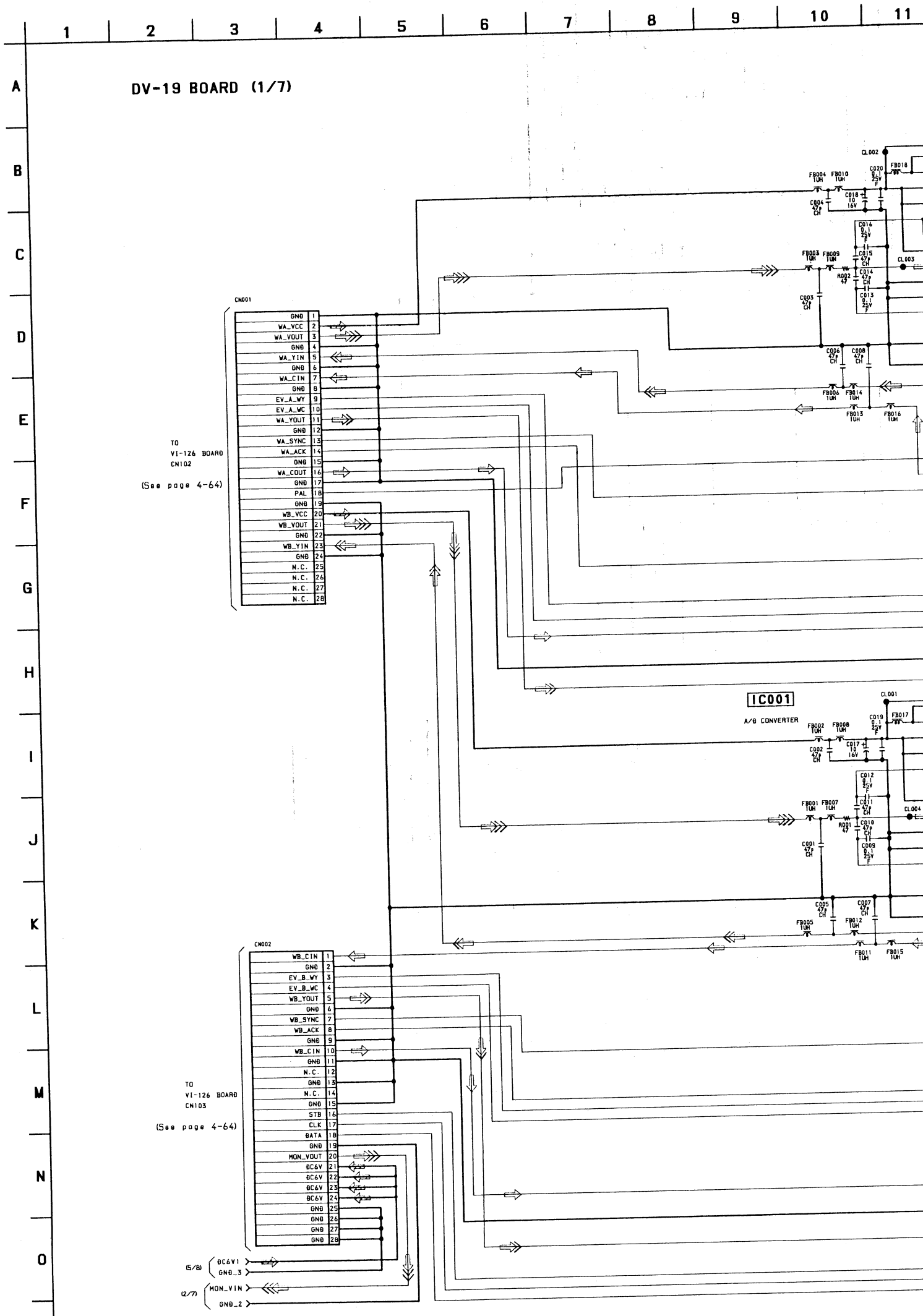
– Ref No. DV-19 BOARD : 7,000 Seriese –

⑩ IC002 ⑫ 1V/0.02µs



⑤⑥ IC004 ⑧⑩ 1V/0.02µs

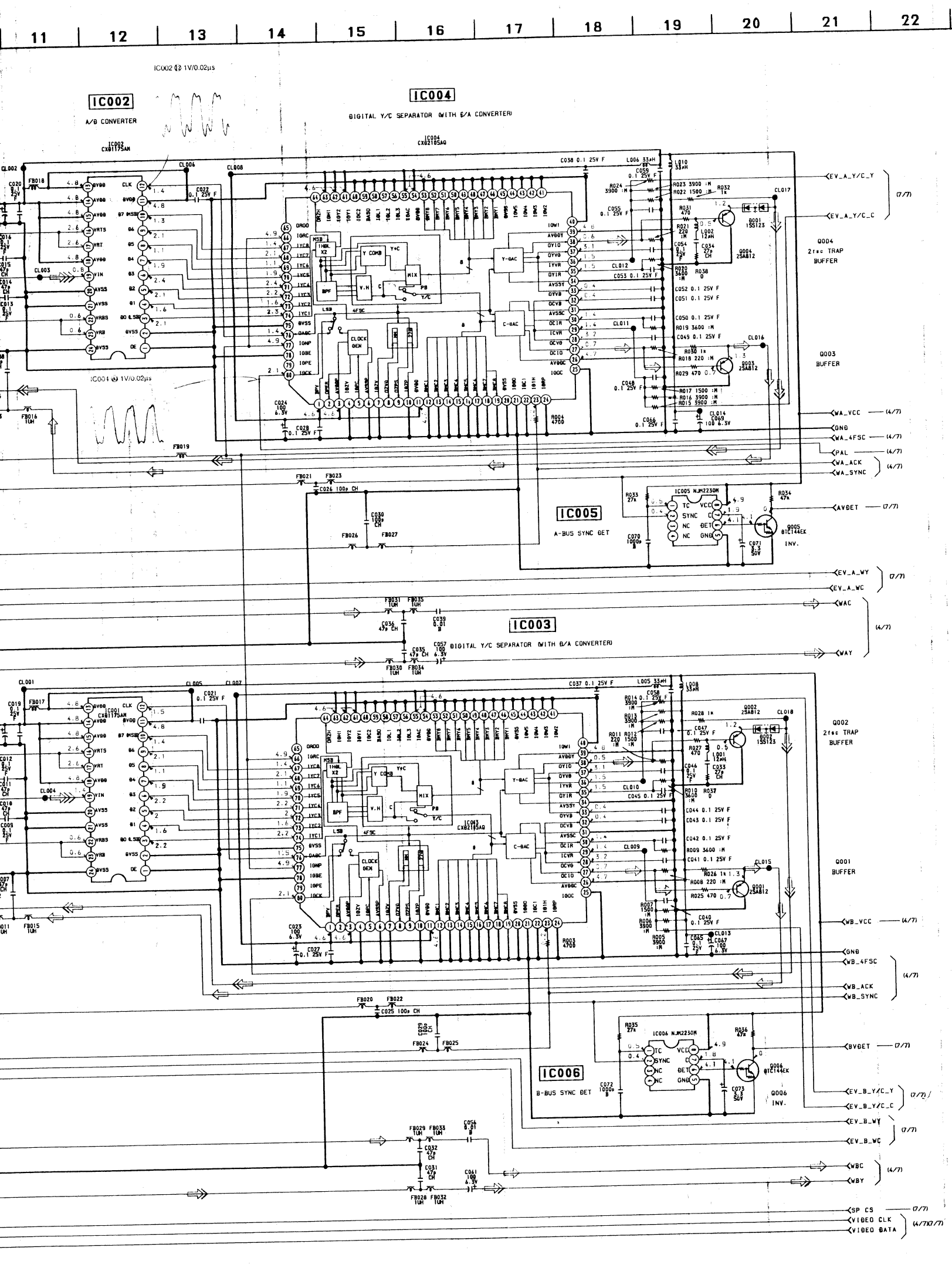





16

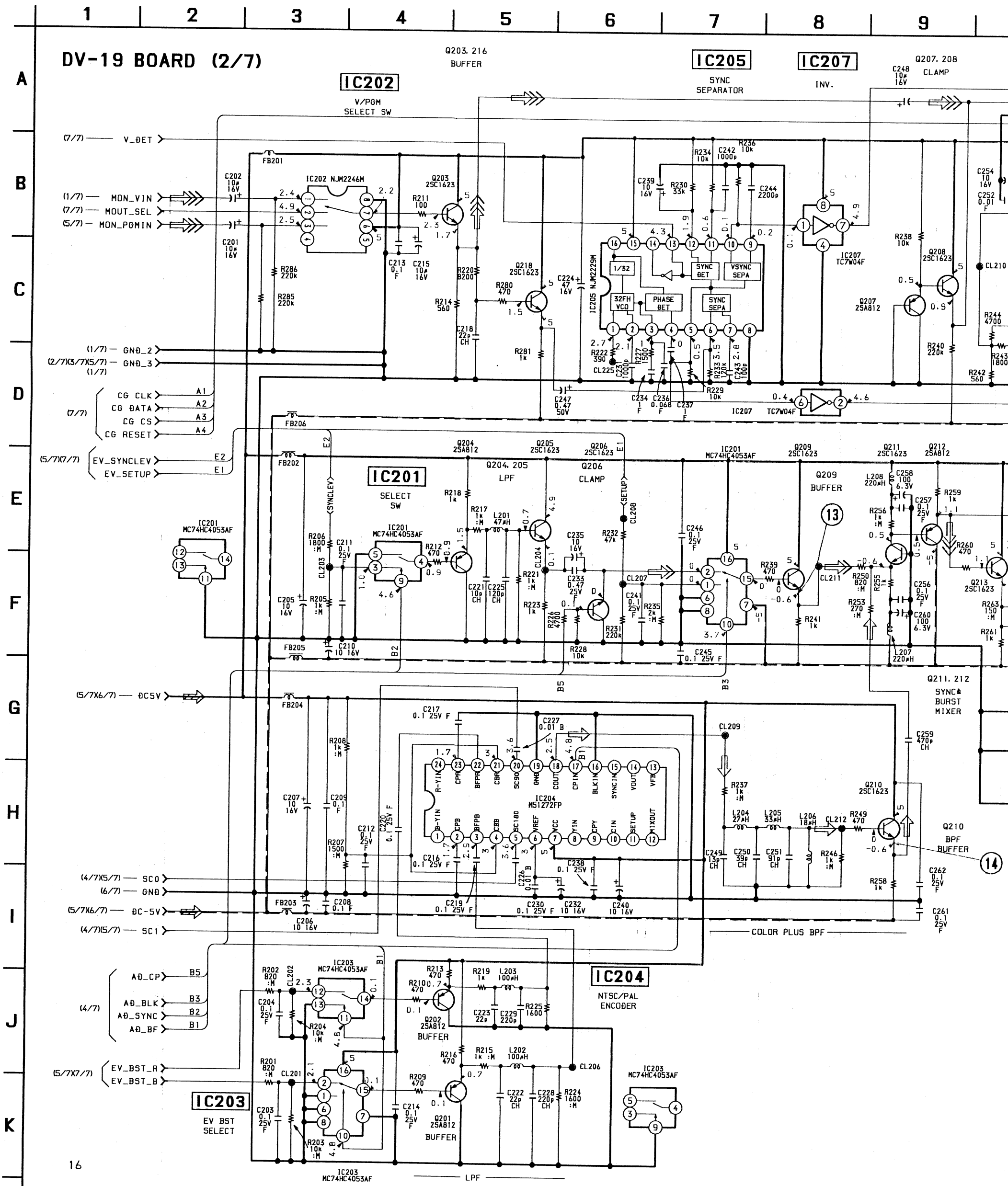
• **SIGNAL PATH (ANALOG)**

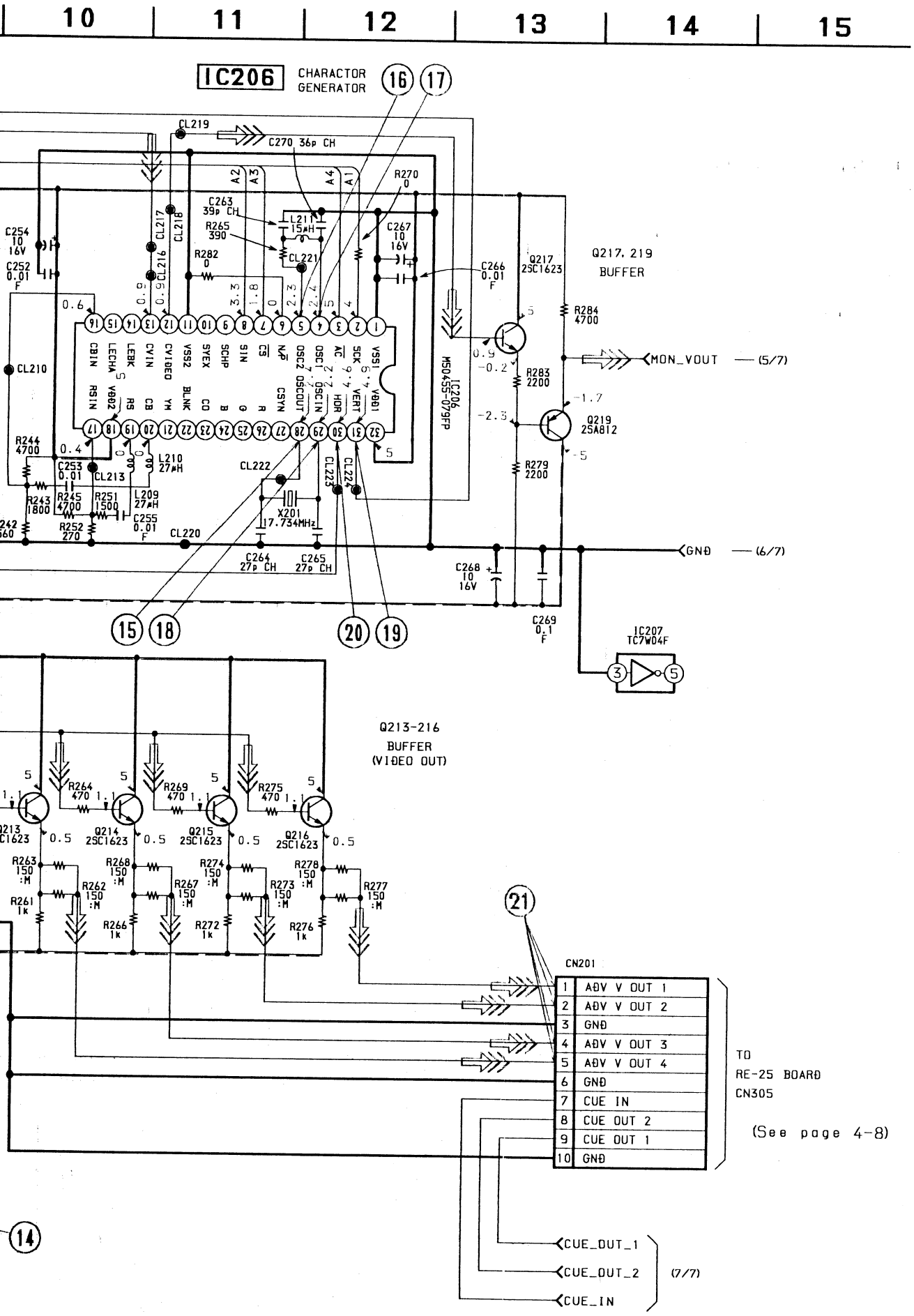
| VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|
| CHROMA | Y | Y/CHROMA | |
| ⇨ | ⇨ | ⇨ | |

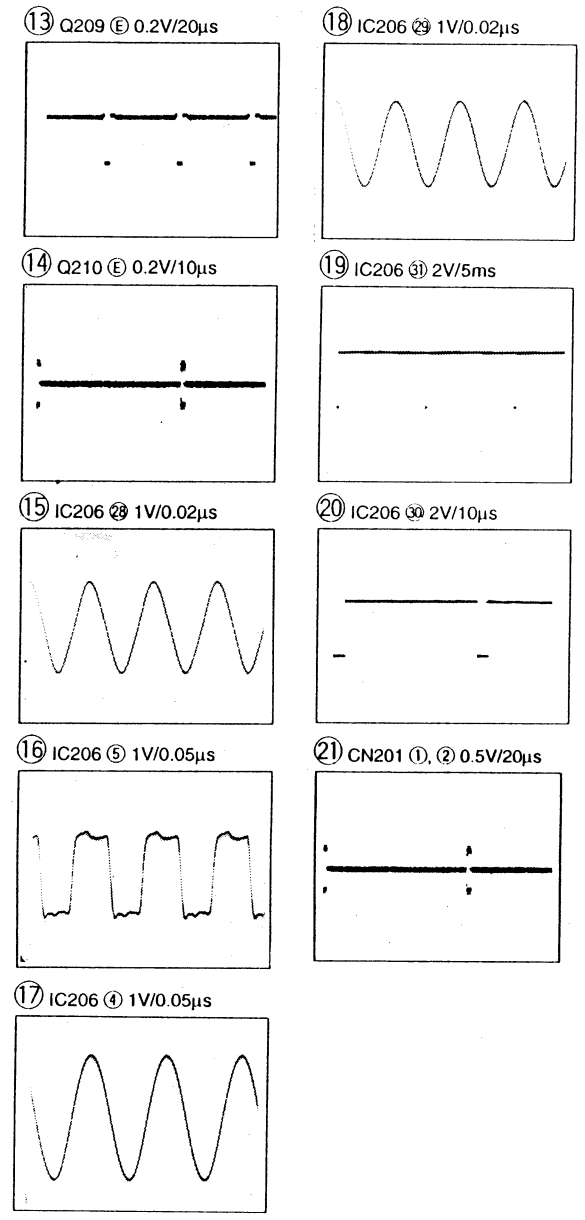

IC002
A/B CONVERTER
IC002 CX81175AM
IC002 @ 1V/0.02µs
IC001 @ 1V/0.02µs
IC004
BIGITAL Y/C SEPARATOR (WITH B/A CONVERTER)
IC004 CX82105AQ
IC005
A-BUS SYNC DET
IC005 NJM2230M
IC003
BIGITAL Y/C SEPARATOR (WITH B/A CONVERTER)
IC003 CX82105AQ
IC006
B-BUS SYNC DET
IC006 NJM2230M
Q004 2fsc TRAP BUFFER
Q003 BUFFER
Q002 2fsc TRAP BUFFER
Q001 BUFFER
Q005 BTC144EK INV.
Q006 BTC144EK INV.
EV_A_Y/C_Y
EV_A_Y/C_C
WA_VCC
GND
WA_4FSC
PAL
WA_ACK
WA_SYNC
AVDET
EV_A_WY
EV_A_WC
WAC
WAY
WB_VCC
WB_4FSC
WB_ACK
WB_SYNC
BVDET
EV_B_Y/C_Y
EV_B_Y/C_C
EV_B_WY
EV_B_WC
WBC
WBY
SP CS
VIDEO CLK
VIDEO DATA

**DV-19 (2/7) (VIDEO (2/7) ) SCHEMATIC DIAGRAM** • See page 4-82 for PRINTED WIRING BOARD

– Ref No. DV-19 BOARD : 7,000 Seriese –





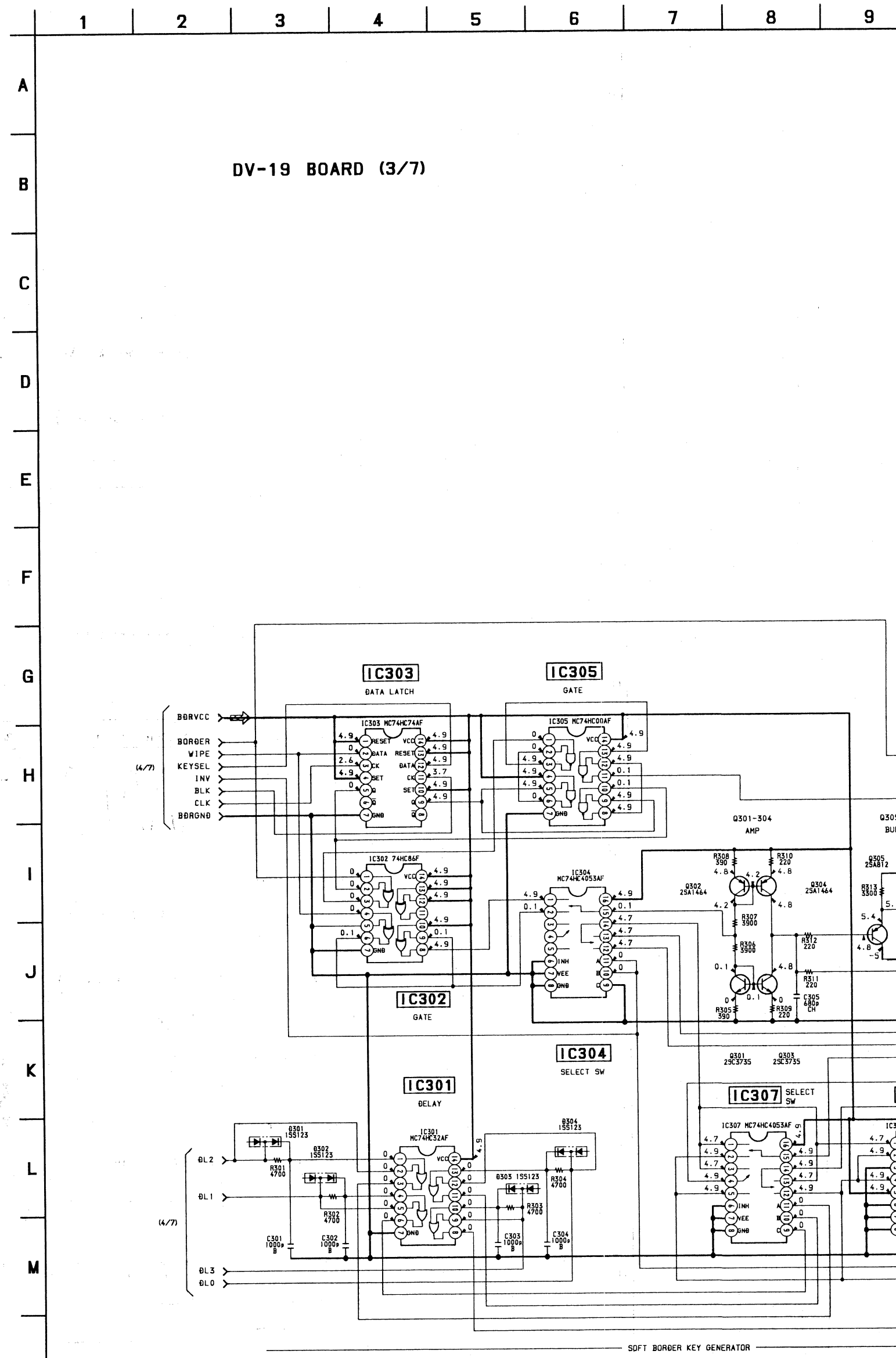

• **SIGNAL PATH (ANALOG)**

| VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|
| CHROMA | Y | Y/CHROMA | |
| ⇨ | ⇨ | ⇨ | |

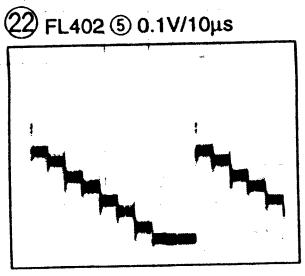
## DV-19 (3/7) (VIDEO (3/7) ) SCHEMATIC DIAGRAM

• See page 4-82 for PRINTED WIRING BOARD

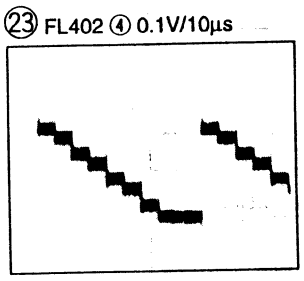
– Ref No. DV-19 BOARD : 7,000 Seriese –



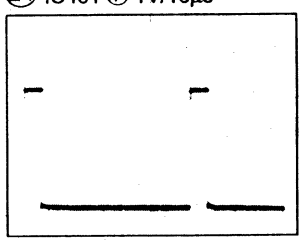

㉒ FL402 ⑤ 0.1V/10µs



㉓ FL402 ④ 0.1V/10µs

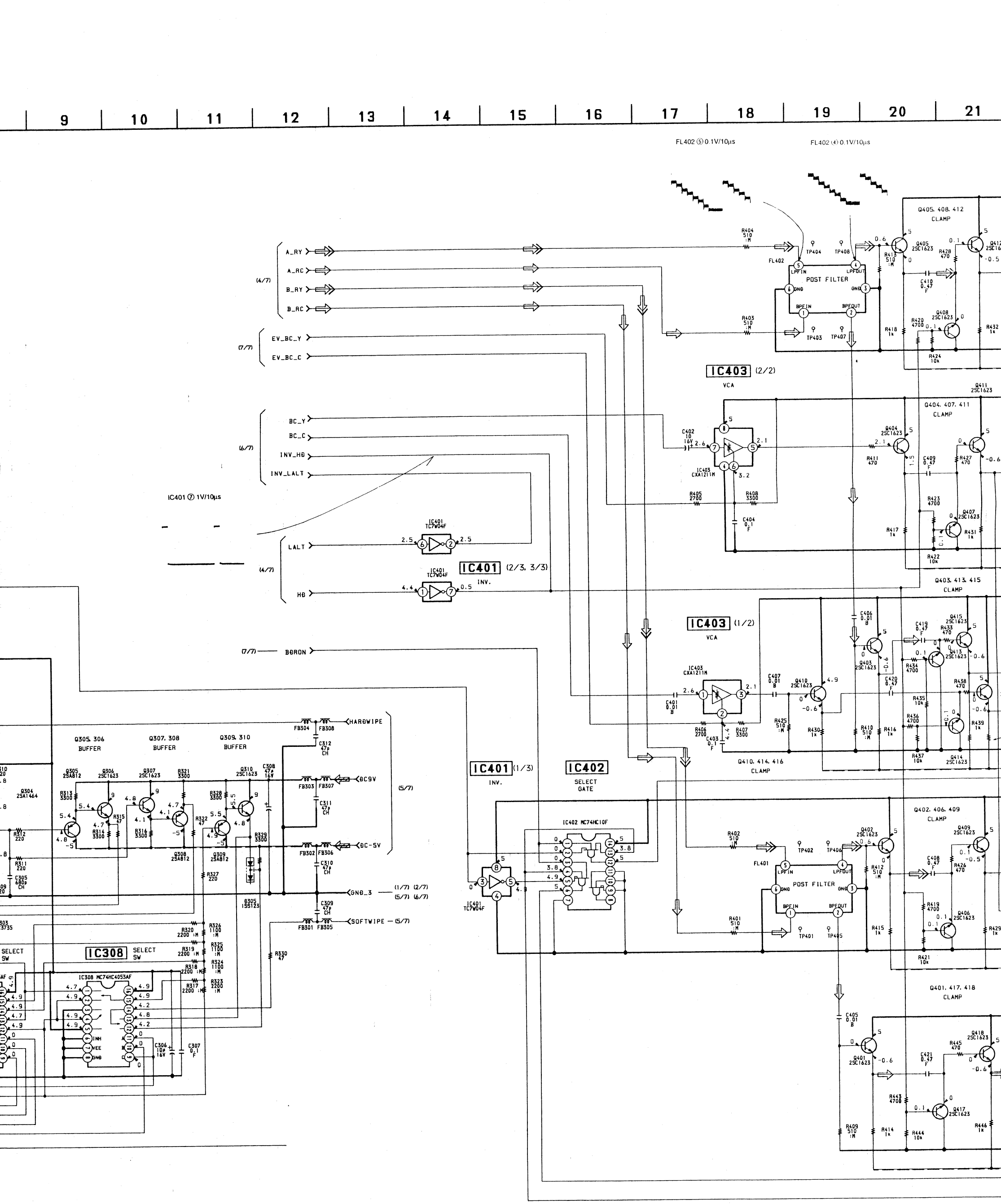


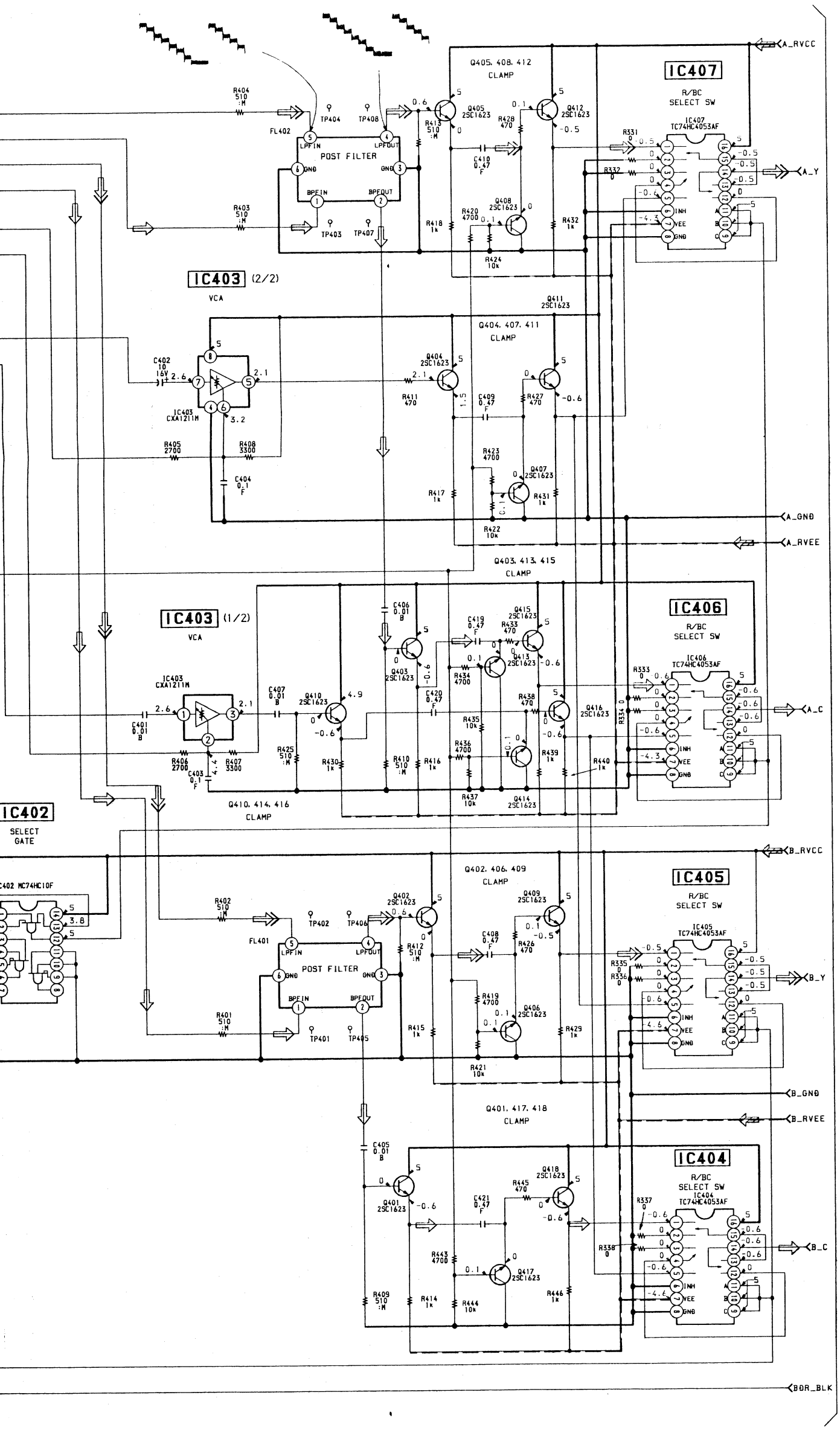
㉔ IC401 ⑦ 1V/10µs



• **SIGNAL PATH (ANALOG)**

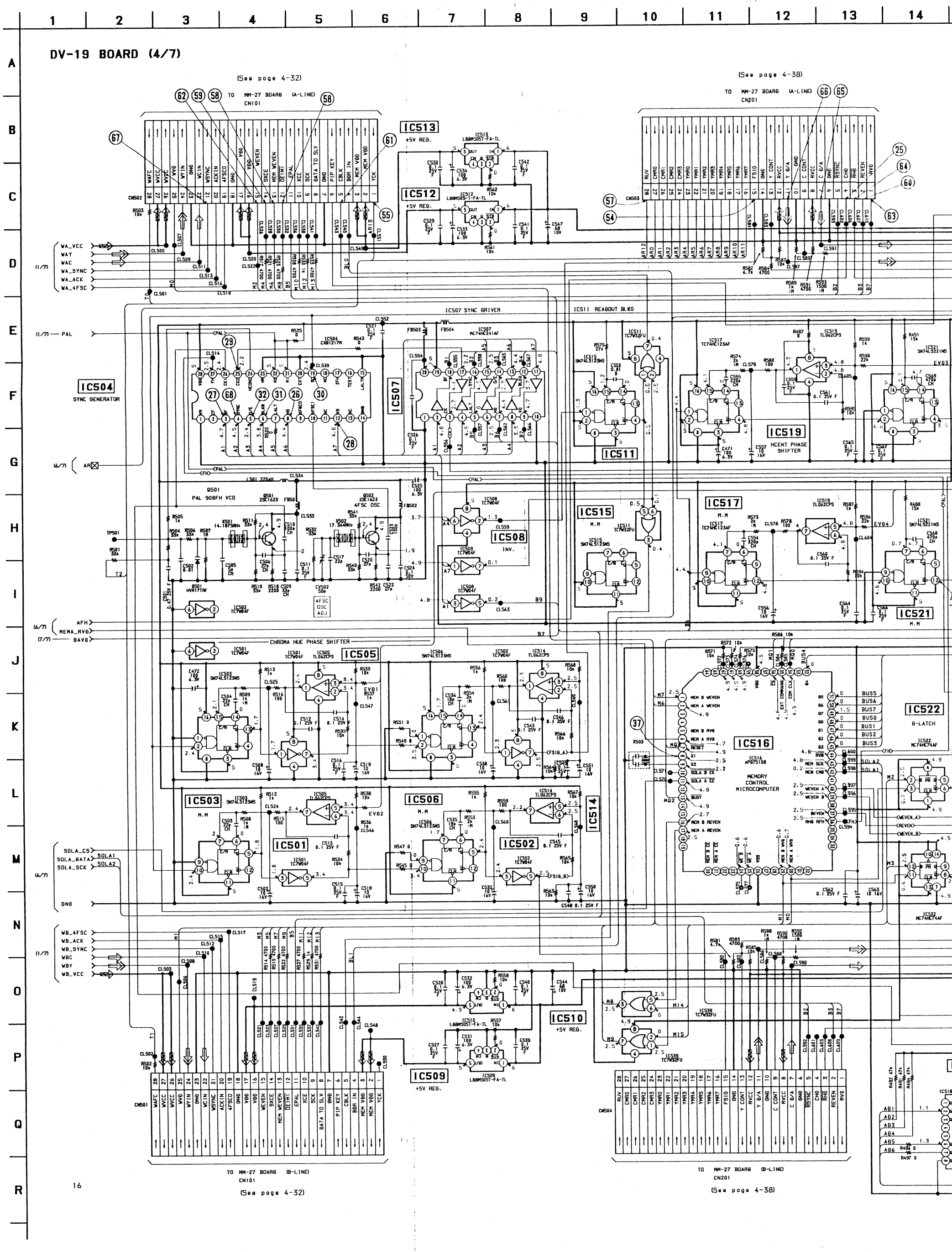
| VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|
| CHROMA | Y | Y/CHROMA | |
| ⇨ | ⇨ | | |


FL402 ⑤ 0.1V/10µs
FL402 ④ 0.1V/10µs
IC401 ⑦ 1V/10µs
A_RY
A_RC
B_RY
B_RC
(4/7)
EV_BC_Y
EV_BC_C
(7/7)
BC_Y
BC_C
INV_HØ
INV_LALT
(6/7)
LALT
HØ
(4/7)
IC401 (2/3, 3/3)
INV.
IC401 TC7W04F
BØRON
(7/7)
IC403 (2/2)
VCA
IC403 CXA1211M
IC401 (1/3)
INV.
IC402
SELECT GATE
IC402 MC74HC10F
IC401 TC7W04F
IC308
SELECT SW
IC308 MC74HC4053AF
INH
VEE
GNØ
FL402
FL401
LPFIN
LPFOUT
GNØ
BPFIN
BPFOUT
POST FILTER
TP404
TP408
TP403
TP407
TP402
TP406
TP401
TP405
Q405. 408. 412
CLAMP
Q404. 407. 411
CLAMP
Q403. 413. 415
CLAMP
Q410. 414. 416
CLAMP
Q402. 406. 409
CLAMP
Q401. 417. 418
CLAMP
Q305. 306
BUFFER
Q307. 308
BUFFER
Q309. 310
BUFFER
HARØWIPE
ØC9V
ØC-5V
GNØ_3
SOFTWIPE
(5/7)
(1/7) (2/7)
(5/7) (6/7)


FL402 ⑤ 0.1V/10μs
FL402 ④ 0.1V/10μs
IC403 (2/2)
VCA
IC403 (1/2)
VCA
IC402
SELECT GATE
IC407
R/BC SELECT SW
IC406
R/BC SELECT SW
IC405
R/BC SELECT SW
IC404
R/BC SELECT SW
Q405. 408. 412 CLAMP
Q404. 407. 411 CLAMP
Q403. 413. 415 CLAMP
Q410. 414. 416 CLAMP
Q402. 406. 409 CLAMP
Q401. 417. 418 CLAMP
POST FILTER
FL402
FL401
TP404
TP408
TP403
TP407
TP402
TP406
TP401
TP405
A_RVCC
A_Y
A_GND
A_RVEE
A_C
B_RVCC
B_Y
B_GND
B_RVEE
B_C
BOR_BLK
(5/7)

**DV-19 (4/7) (VIDEO (4/7) ) SCHEMATIC DIAGRAM** • See page 4-82 for PRINTED WIRING BOARD

– Ref No. DV-19 BOARD : 7,000 Seriese –






VIDEO (4/7)

14 15 16 17 18 19 20 21 22 23 24 25 26

A B C D E F G H I J K L M N O P Q R

SHIFT COUNTER

IC540 IC541 IC542 IC543 INV.

IC540 MC74HC175F

IC541 TC7W74F

IC542 MC74HC4024F

IC543 TC7S00F

R576 0

B1 B6

FB548

<CK>

SC2 (6/7)

L504 16n 82nH CH C469 C467 0.01 B R481 1k R482 470 C470 0.01 B L503 18nH C468 82p CH

BL0 BL1

T0 T1 T2 T3

AØ_A_AFC AØ_B_AFC AØ_PLL1 AØ_PLL2 BLA BLB (7/7)

FB536 FB537 C466 47p CH PIPAKEY

FB514 FB532 C458 47p CH A_RVCC (5/7)

FB513 FB531 C457 47p CH A_RC (3/7)

EV_A_RC (7/7)

FB512 FB530 C456 47p CH A_RY (3/7)

EV_A_RY

EVØ1 EV_A_HUE

EVØ2 EV_B_HUE

EVØ3 EV_A_HCENT

EVØ4 EV_B_HCENT (7/7)

FB511 FB529 C455 220p CH SCO

FB510 FB528 C454 220p CH SC1 (2/7)X(5/7)

ØC6V2 (5/7)

FL501

VØMC (7/7)

VØMM (6/7)

BUS0 BUS1 BUS2 BUS3 BUS4 BUS5 BUS6 BUS7 (7/7)

INV BØRVCC BØRDER WIPE BLK KEYSEL CLK BØRGNØ (3/7)

BL0 BL1 BL2 BL3 (3/7)

MQ0 MEM_SCK MQ1 MEM_CS MQ2 MEM_BUSY MQ3 CO_RESET MQ4 WIP_SCK MQ5 WIP_CS (7/7)

MASTERCLK EV_B_RY (7/7)

B_RY (3/7)

EV_B_RC (7/7)

B_RC (3/7)

B_RVCC (5/7)

HØ (3/7)X(5/7)

CP (5/7)X(6/7)

BLKG (5/7)

BF (5/7)X(6/7)

SYNC (5/7)

LALT (3/7)

REVEN (7/7)

AØ_BLK AØ_SYNC AØ_BF AØ_CP (2/7)

M4 MA_SXCE M5 MB_SXCE M10 MA CS M11 MB CS M12 VIDEO CLK M13 VIDEO DATA M14 AREVEN CONT M15 BREVEN CONT (7/7)X(1/7)X(7/7)

0/90 DEG SUBCARRIER PLL

IC524 PHASE COMP. CXA3065A

IC530 AMP TC7WU04F

IC532 MC74HC74AF

IC533 TC74HC86AF GATE

IC535 +5V REG. L88MS05T-FA-TL

IC521 SN74LS221NS M.M

IC522 MC74HC74AF Ø-LATCH

IC529 WIPE GEOMETRY PROCESSOR

IC531 MSM72H017FS WIPE PATTERN GENERATOR

SIELØ CASE LNBØØ1 LNBØØ2 LNBØØ3 LNBØØ4 LNBØØ5 LNBØØ6

IC525 KEY START SELECT MC74HC00AF

IC527 TC7W08F GATE

IC526 TC7WU04F MAIN&WIPE MICOM CLOCK GEN

IC520 ADVANCE SYNC GENERATOR

IC536 MC74HC74AF

IC537 TC7W00F

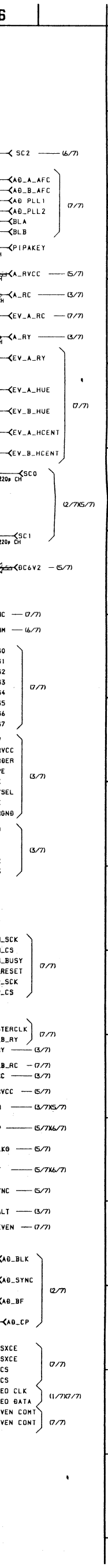
IC523 CXB1217M20 SYNC GENERATOR

IC528 L88MS05T-FA-TL +5V REG.

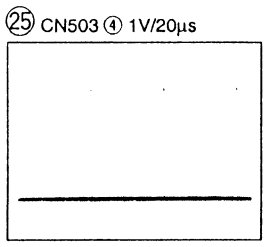
IC534 TC7S04F INV.

IC518 SN74HC4040ANS

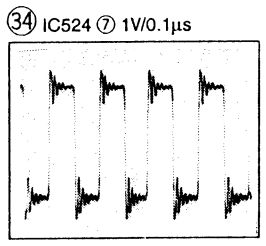
IC520 TC74HC133AF



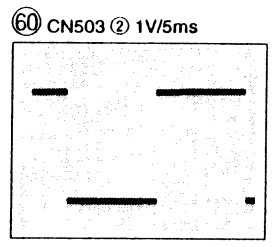

25 CN503 ④ 1V/20µs



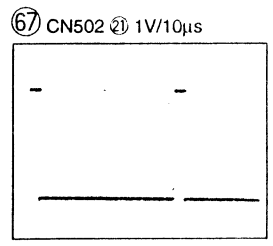
34 IC524 ⑦ 1V/0.1µs



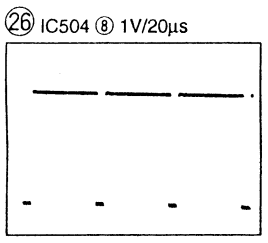
60 CN503 ② 1V/5ms



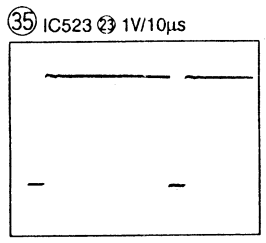
67 CN502 ㉑ 1V/10µs



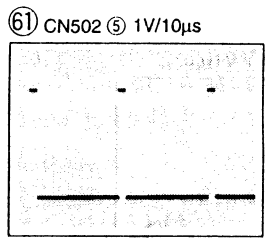
26 IC504 ⑧ 1V/20µs



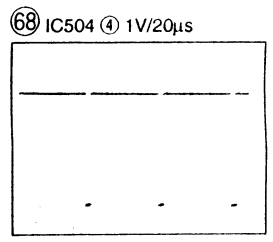
35 IC523 ㉓ 1V/10µs



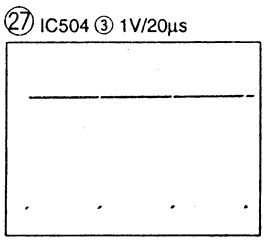
61 CN502 ⑤ 1V/10µs



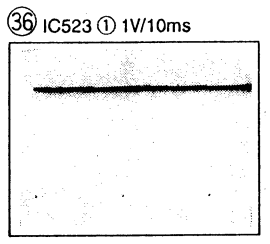
68 IC504 ④ 1V/20µs



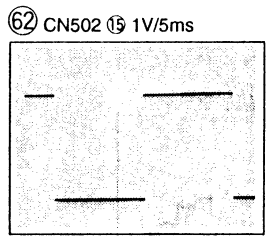
27 IC504 ③ 1V/20µs



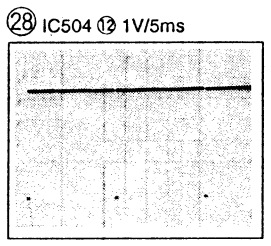
36 IC523 ① 1V/10ms



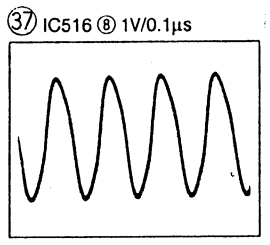
62 CN502 ⑮ 1V/5ms



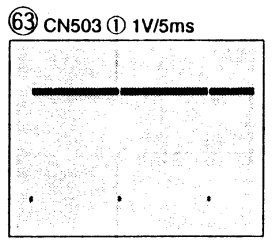
28 IC504 ⑫ 1V/5ms



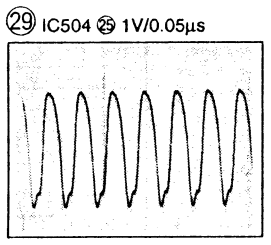
37 IC516 ⑧ 1V/0.1µs



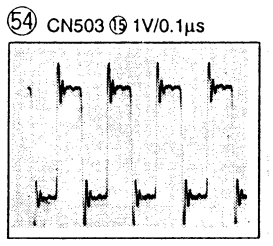
63 CN503 ① 1V/5ms



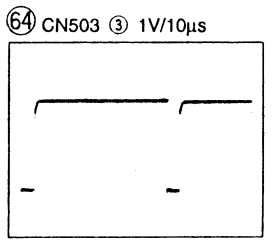
29 IC504 ㉕ 1V/0.05µs



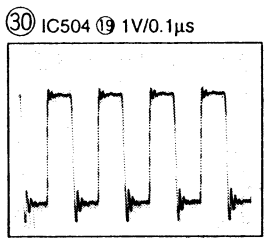
54 CN503 ⑮ 1V/0.1µs



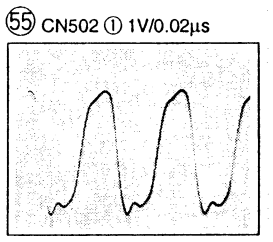
64 CN503 ③ 1V/10µs



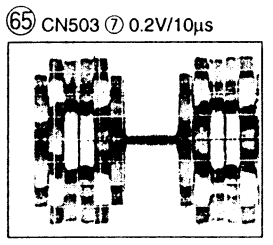
30 IC504 ⑲ 1V/0.1µs



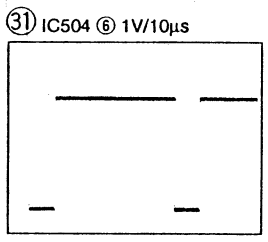
55 CN502 ① 1V/0.02µs



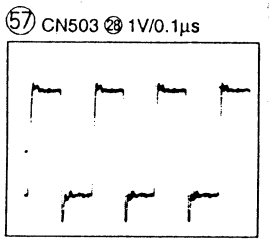
65 CN503 ⑦ 0.2V/10µs



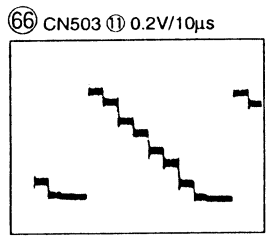
31 IC504 ⑥ 1V/10µs



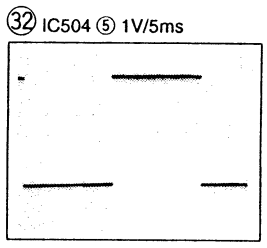
57 CN503 ㉘ 1V/0.1µs



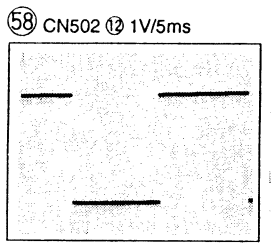
66 CN503 ⑪ 0.2V/10µs



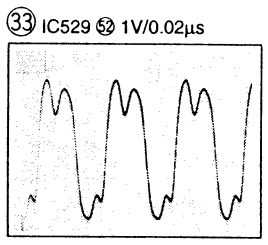
32 IC504 ⑤ 1V/5ms



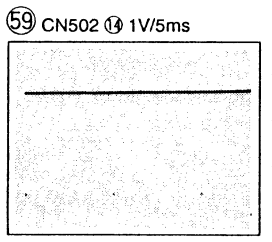
58 CN502 ⑫ 1V/5ms



33 IC529 ㉜ 1V/0.02µs



59 CN502 ⑭ 1V/5ms

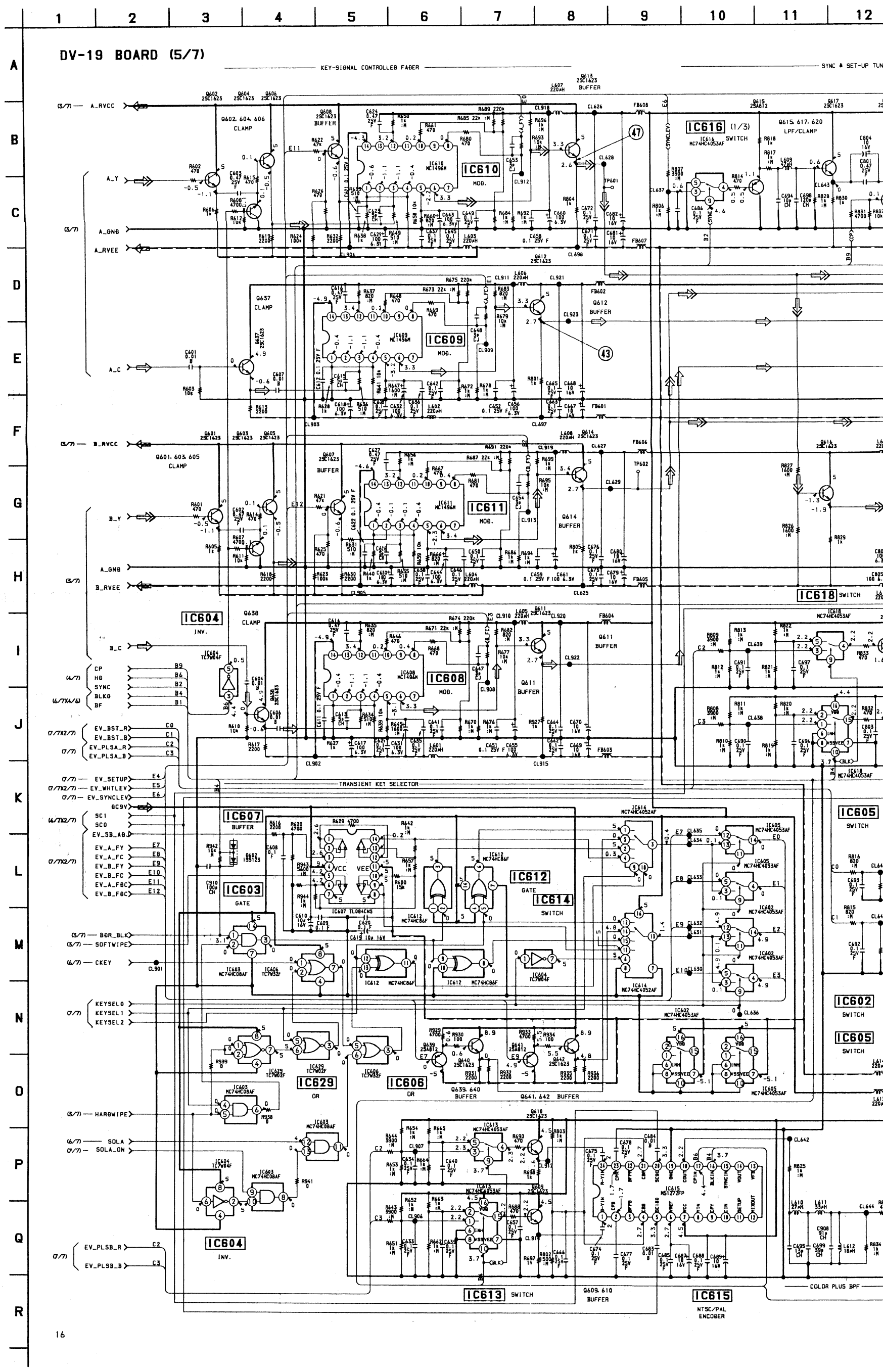


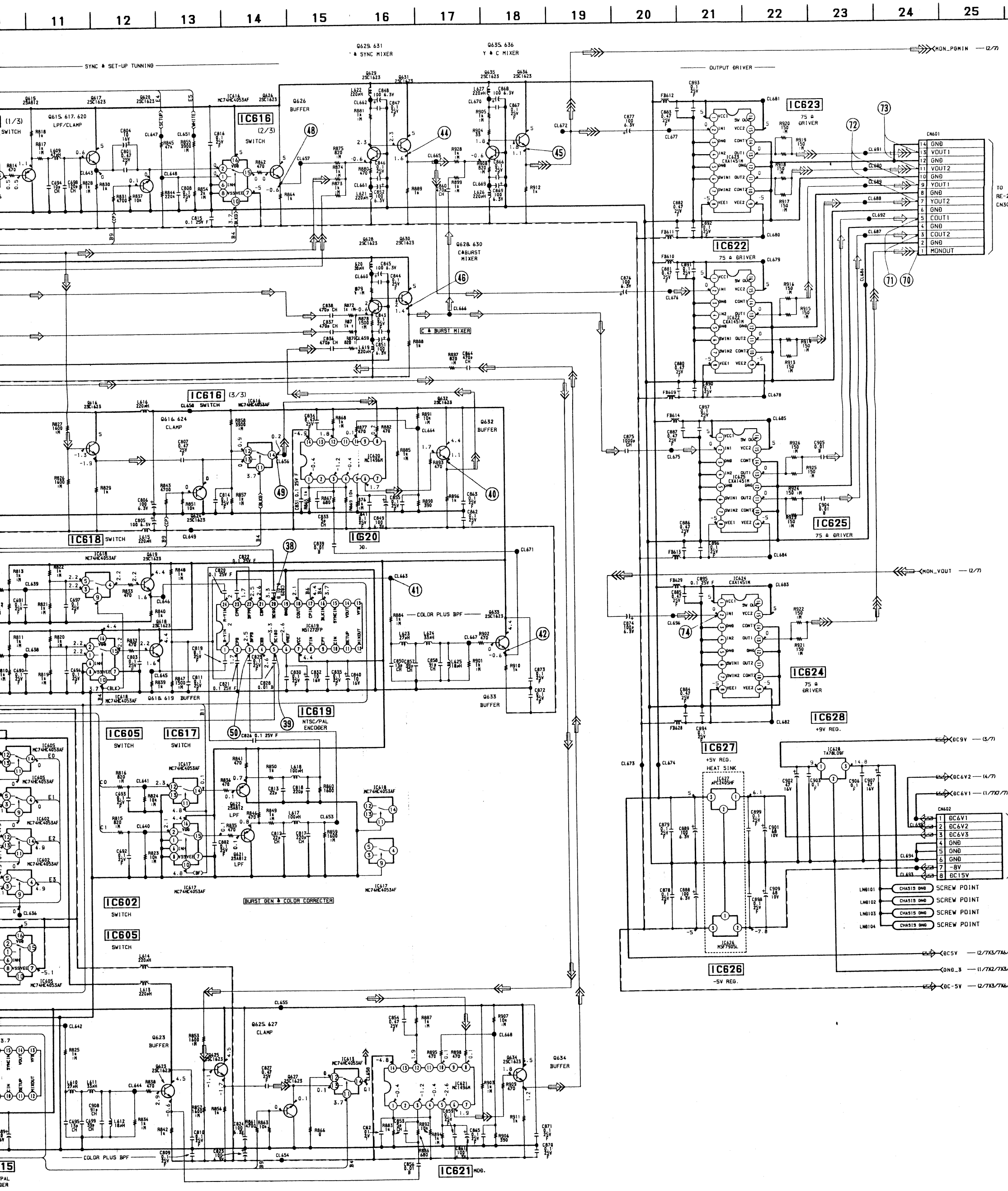
• **SIGNAL PATH (ANALOG)**

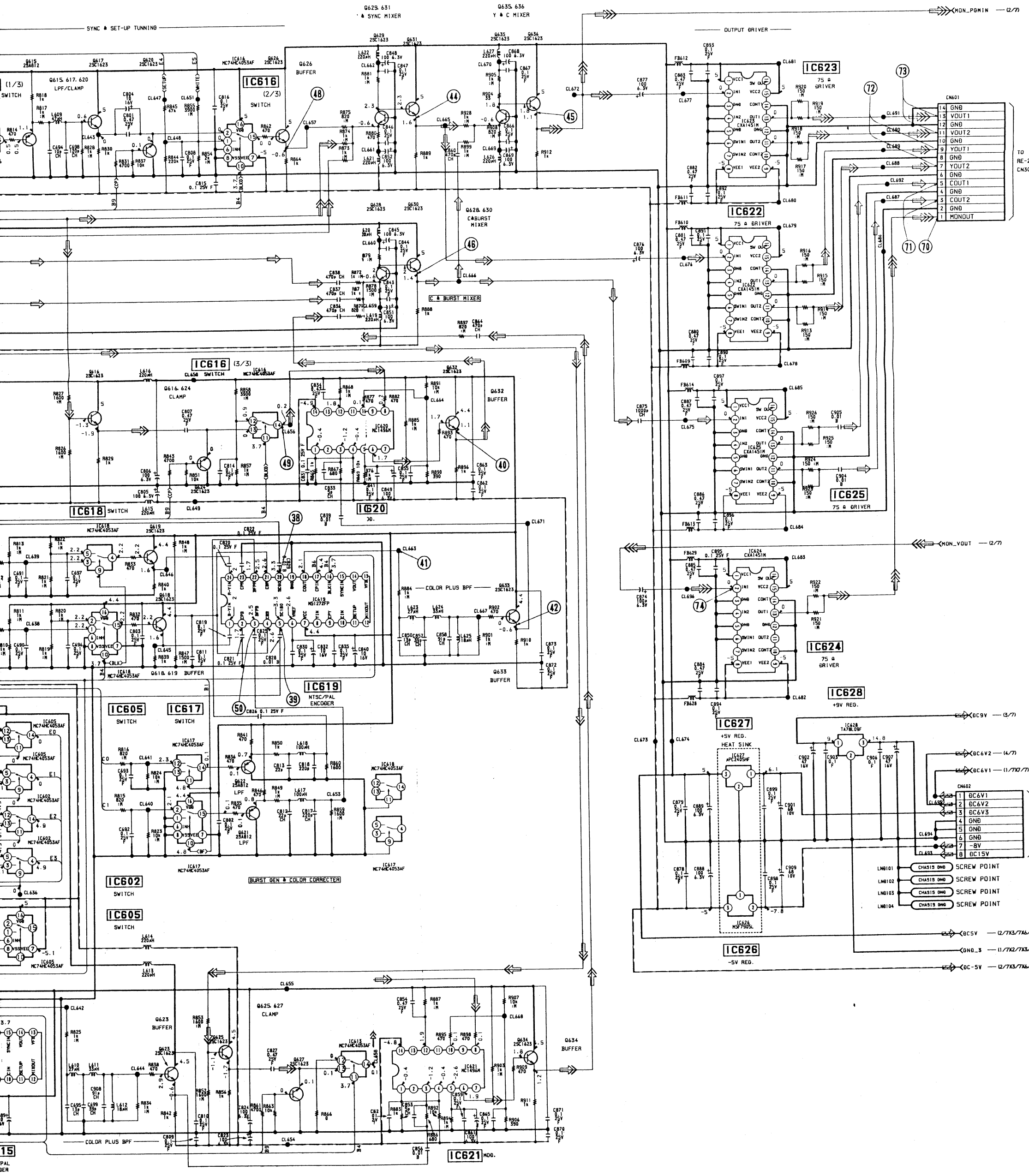
| VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|
| CHROMA | Y | Y/CHROMA | |
| ⇨ | ⇨ | | |

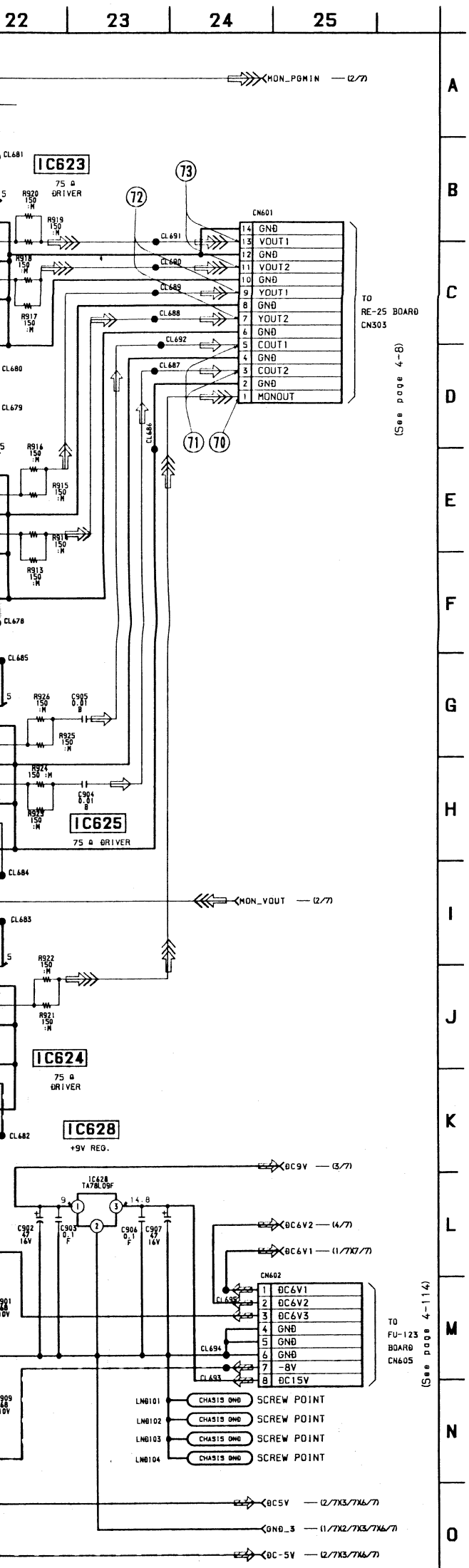
**DV-19 (5/7) (VIDEO (5/7) ) SCHEMATIC DIAGRAM** • See page 4-82 for PRINTED WIRING BOARD

– Ref No. DV-19 BOARD : 7,000 Seriese –

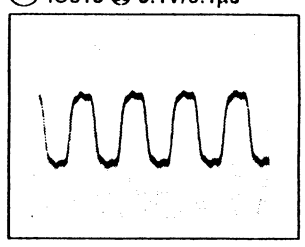



11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
SYNC & SET-UP TUNNING
Q629, 631 Y & SYNC MIXER
Q635, 636 Y & C MIXER
OUTPUT DRIVER
MON_PGMIN (2/7)
IC616 (1/3) SWITCH
LPF/CLAMP
IC616 (2/3) SWITCH
Q626 BUFFER
Q628, 630 C&BURST MIXER
C & BURST MIXER
IC616 (3/3) SWITCH
Q616, 624 CLAMP
IC620 MC1496M
Q632 BUFFER
IC618 SWITCH
IC619 NTSC/PAL ENCODER
Q618, 619 BUFFER
Q633 BUFFER
IC623 75Ω DRIVER
IC622 75Ω DRIVER
IC624 75Ω DRIVER
IC625 75Ω DRIVER
IC628 +9V REG.
IC627 +5V REG.
IC626 -5V REG.
CN601
GND
VOUT1
VOUT2
VOUT3
COUT1
COUT2
MONOUT
TO RE-2 CN30
CN602
BC6V1
BC6V2
BC6V3
GND
-8V
BC15V
SCREW POINT
CHASIS GND
MON_VOUT (2/7)
BC9V (3/7)
BC6V2 (4/7)
BC6V1 (1/7)(7/7)
BC5V (2/7X3/7X6)
GND_3 (1/7X2/7X3)
BC-5V (2/7X3/7X6)
BURST GEN & COLOR CORRECTER
COLOR PLUS BPF
IC621 MOD.
IC602 SWITCH
IC605 SWITCH
IC617 SWITCH

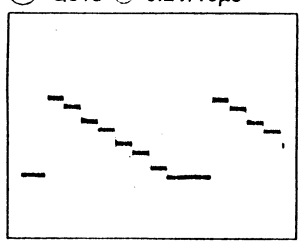

SYNC & SET-UP TUNNING
Q629, 631 Y & SYNC MIXER
Q635, 636 Y & C MIXER
OUTPUT DRIVER
MON_PGMIN (2/7)
IC616 (2/3) SWITCH
Q626 BUFFER
IC623 75Ω DRIVER
IC622 75Ω DRIVER
IC625 75Ω DRIVER
IC624 75Ω DRIVER
IC628 +9V REG.
IC627 +5V REG.
IC626 -5V REG.
CN601
1 MONOUT
2 GND
3 COUT2
4 GND
5 COUT1
6 GND
7 VOUT2
8 GND
9 YOUT1
10 GND
11 VOUT2
12 GND
13 VOUT1
14 GND
TO RE-2 CN30
IC616 (3/3) SWITCH
Q616, 624 CLAMP
Q632 BUFFER
IC620 MC1496M
IC618 SWITCH
IC619 NTSC/PAL ENCODER
Q628, 630 C&BURST MIXER
C & BURST MIXER
IC605 SWITCH
IC617 SWITCH
IC602 SWITCH
BURST GEN & COLOR CORRECTER
Q618, 619 BUFFER
Q633 BUFFER
COLOR PLUS BPF
Q625, 627 CLAMP
Q623 BUFFER
Q634 BUFFER
IC621 MOD.
MON_VOUT (2/7)
CN602
1 DC6V1
2 DC6V2
3 DC6V3
4 GND
5 GND
6 GND
7 -8V
8 DC15V
DC9V (3/7)
DC6V2 (4/7)
DC6V1 (1/7)(3/7)
DC5V (2/7)(3/7)(6/7)
GND_3 (1/7)(2/7)(3/7)
DC-5V (2/7)(3/7)(6/7)
CHASIS GND SCREW POINT
CHASIS GND SCREW POINT
CHASIS GND SCREW POINT
CHASIS GND SCREW POINT



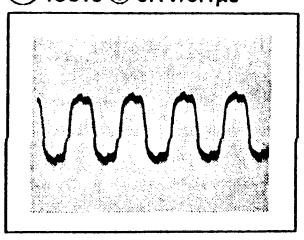

38 IC619 ⑳ 0.1V/0.1µs



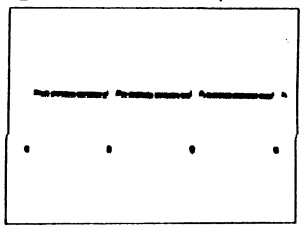
47 Q613 Ⓔ 0.2V/10µs



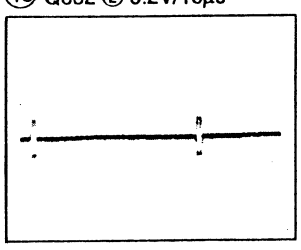
39 IC619 ⑤ 0.1V/0.1µs



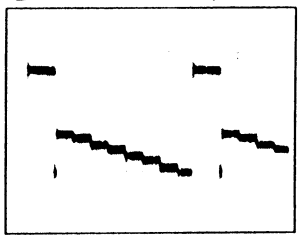
48 Q626 Ⓔ 0.1V/20µs



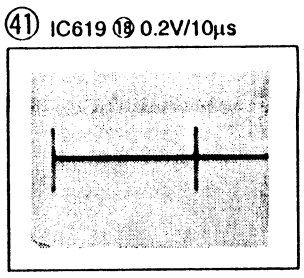
40 Q632 Ⓔ 0.2V/10µs



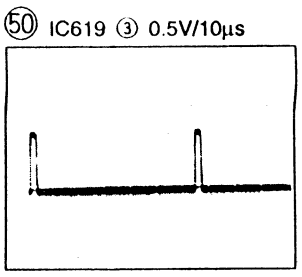
49 IC616 ⑭ 0.2V/10µs



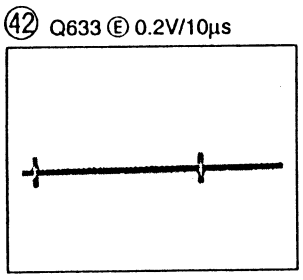
41 IC619 ⑱ 0.2V/10µs



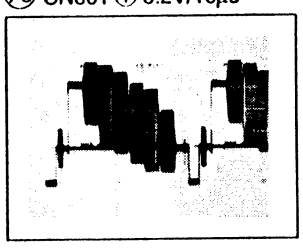
50 IC619 ③ 0.5V/10µs



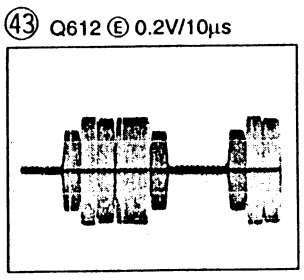
42 Q633 Ⓔ 0.2V/10µs



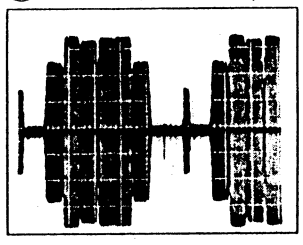
70 CN601 ① 0.2V/10µs



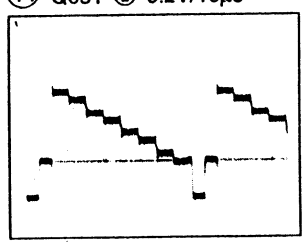
43 Q612 Ⓔ 0.2V/10µs



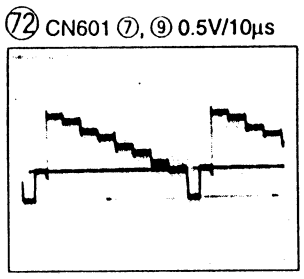
71 CN601 ③, ⑤ 0.2V/10µs



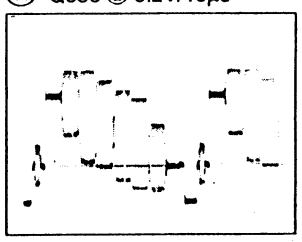
44 Q631 Ⓔ 0.2V/10µs



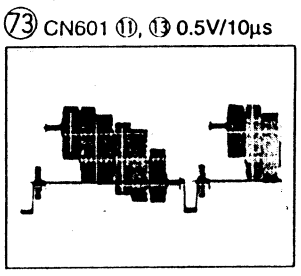
72 CN601 ⑦, ⑨ 0.5V/10µs



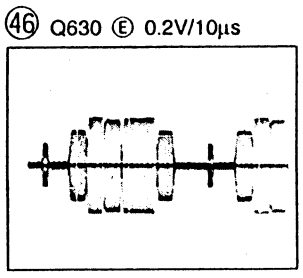
45 Q636 Ⓔ 0.2V/10µs



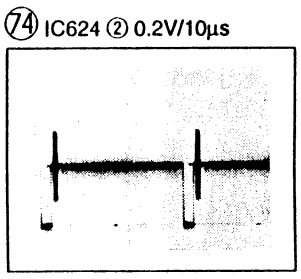
73 CN601 ⑪, ⑬ 0.5V/10µs



46 Q630 Ⓔ 0.2V/10µs



74 IC624 ② 0.2V/10µs

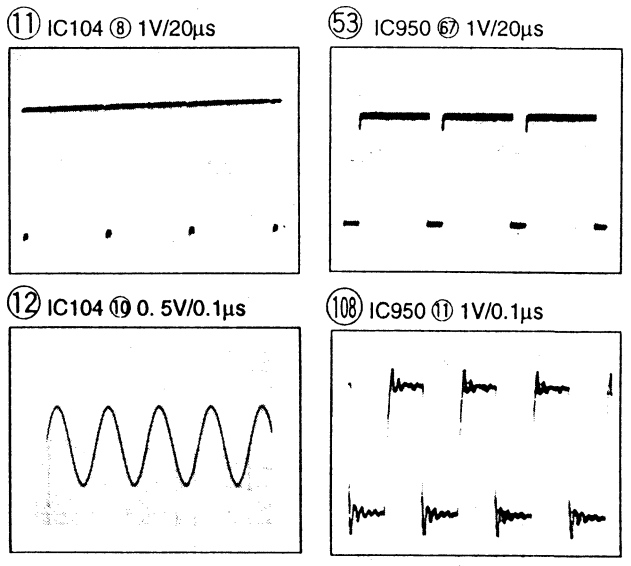


• **SIGNAL PATH (ANALOG)**

| VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|
| CHROMA | Y | Y/CHROMA | |
| ⇨ | ⇨ | ⇨ | |



VIDEO (5/7)




**DV-19 (6/7) (VIDEO (6/7) ) SCHEMATIC DIAGRAM** • See page 4-82 for PRINTED WIRING BOARD

– Ref No. DV-19 BOARD : 7,000 Seriese –

## DV-19 BOARD (6/7)

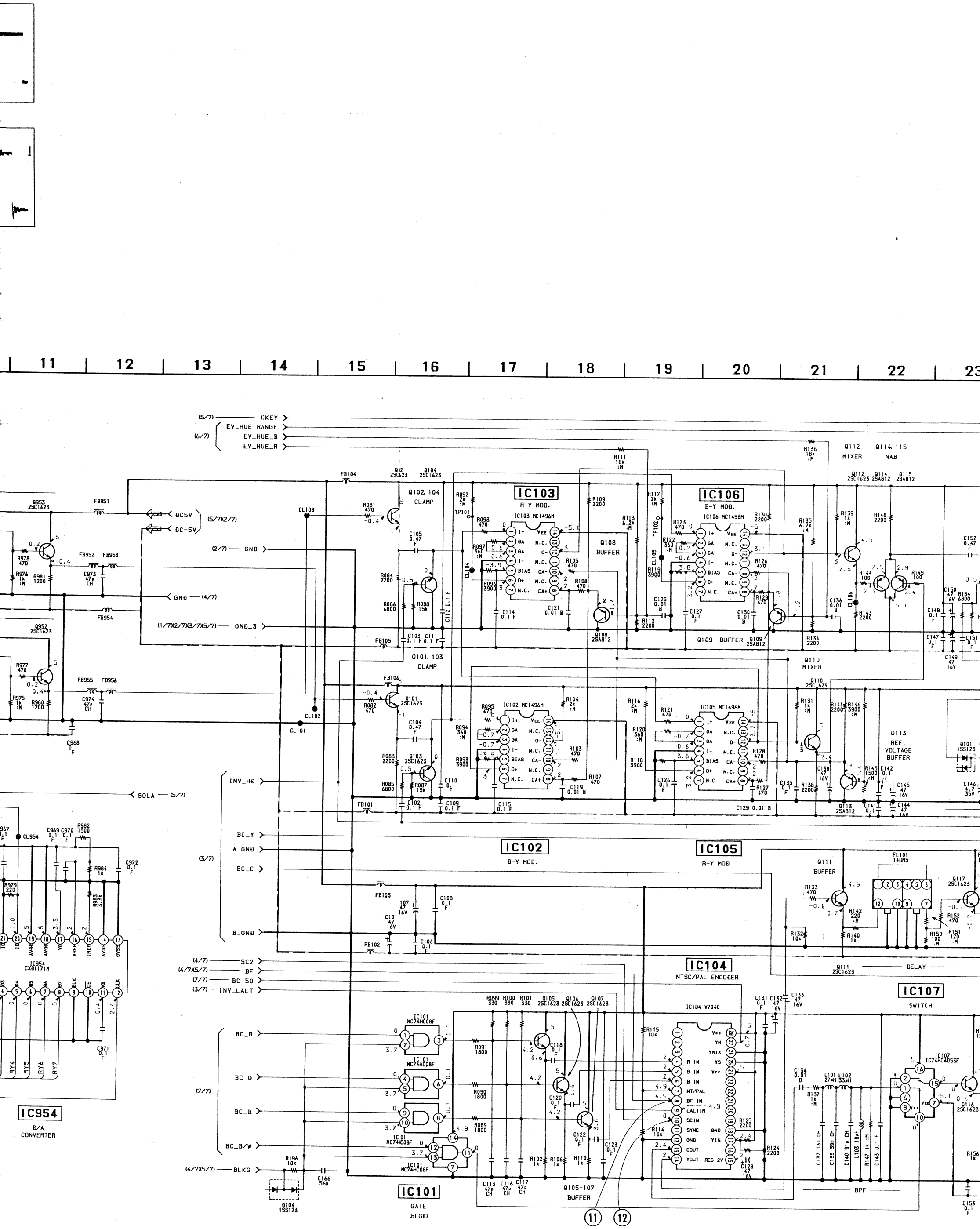
IC951 M.M

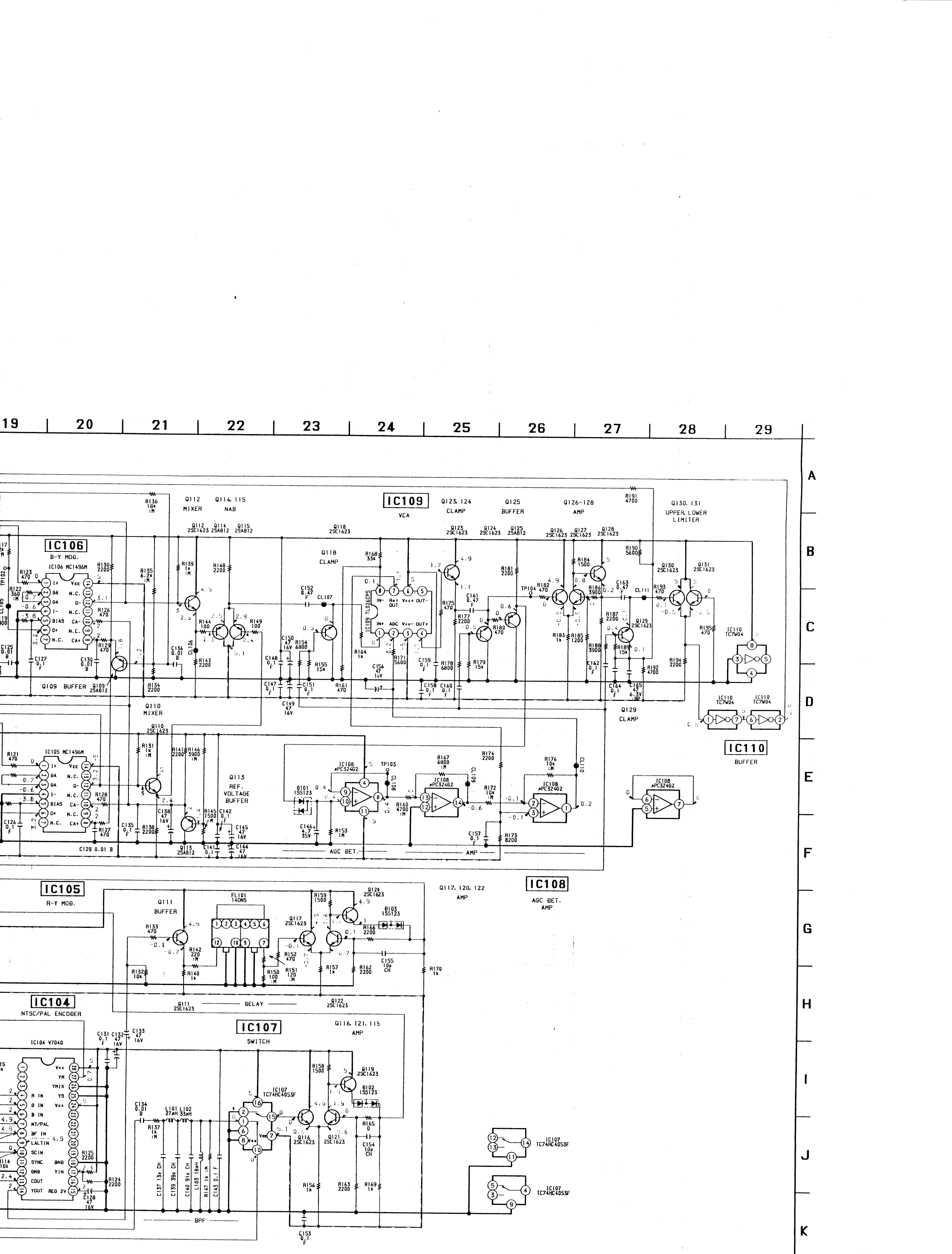
IC955 ANΘ

IC950 MB620461 LUMI KEY/ CHROMA KEY

IC952 CX01171M Θ/A CONVERTER

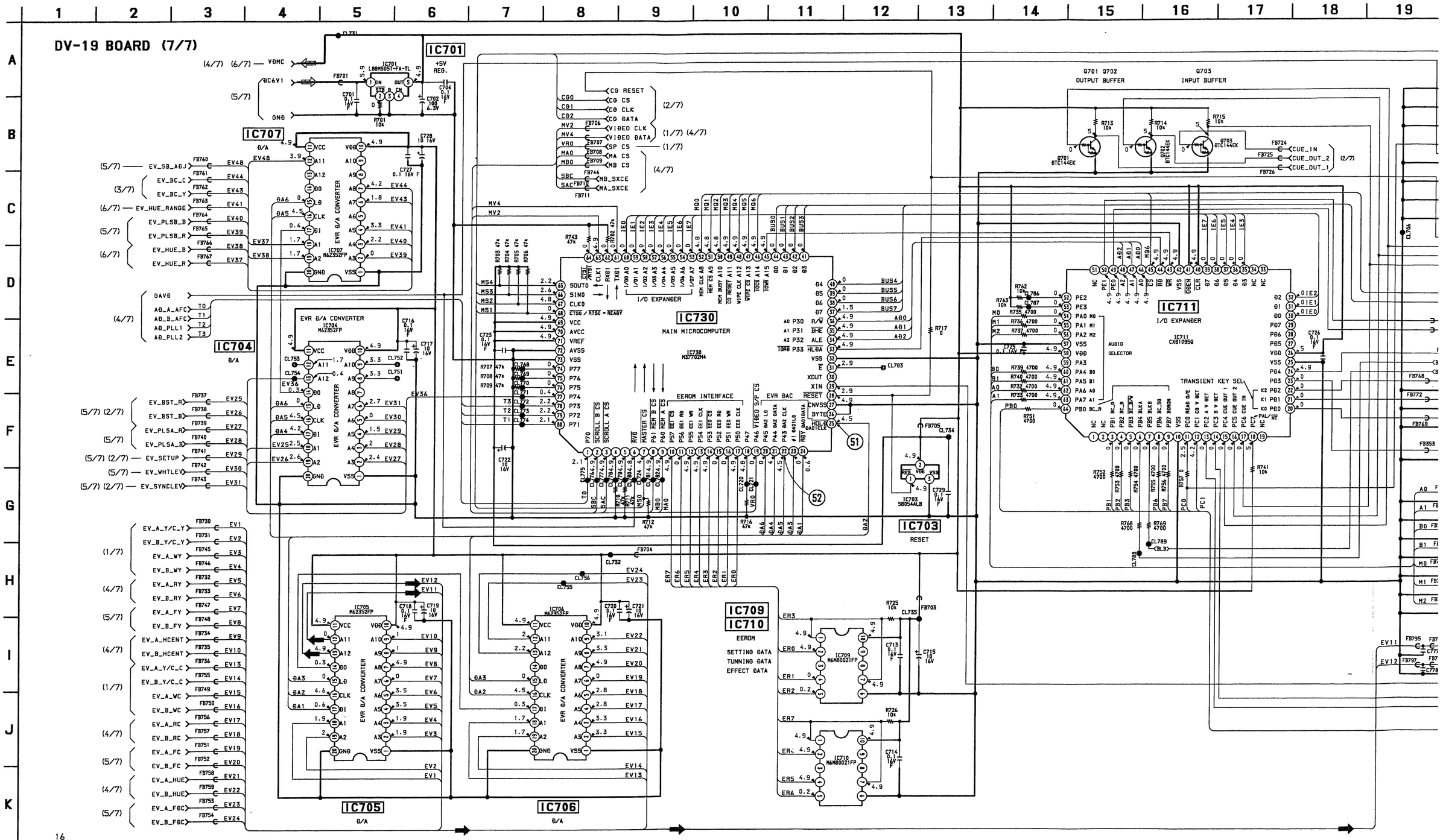
IC954 CX01171M Θ/A CONVERTER


11 12 13 14 15 16 17 18 19 20 21 22 23
(5/7) CKEY
EV_HUE_RANGE
(6/7) EV_HUE_B
EV_HUE_R
IC103
R-Y MOD.
IC103 MC1496M
IC106
B-Y MOD.
IC106 MC1496M
Q108 BUFFER
Q109 BUFFER
Q112 MIXER
Q114, 115 NAB
Q110 MIXER
Q113 REF. VOLTAGE BUFFER
Q102, 104 CLAMP
Q101, 103 CLAMP
IC102 MC1496M
IC105 MC1496M
(5/7X2/7) ĐC5V
ĐC-5V
(2/7) GNĐ
GNĐ — (4/7)
(1/7X2/7X3/7X5/7) — GNĐ_3
SOLA — (5/7)
INV_HĐ
BC_Y
A_GNĐ
(3/7)
BC_C
B_GNĐ
(4/7) SC2
(4/7X5/7) BF
(7/7) BC_50
(3/7) INV_LALT
BC_R
BC_G
(7/7)
BC_B
BC_B/W
(4/7X5/7) BLKG
IC954
CXĐ1171M
Đ/A CONVERTER
IC102
B-Y MOĐ.
IC105
R-Y MOĐ.
IC104
NTSC/PAL ENCOĐER
IC101
GATE (BLGK)
IC107
SWITCH
Q111 BUFFER
Q111 ĐELAY
IC104 V7040
IC107 TC74HC4053F
Q105-107 BUFFER
BPF
FL101 140NS


IC106
B-Y MOD.
IC106 MC1496M
IC109
VCA
IC110
BUFFER
IC105
R-Y MOD.
IC104
NTSC/PAL ENCODER
IC107
SWITCH
IC108
AGC DET. AMP
Q112 MIXER
Q114, 115 NAB
Q118 CLAMP
Q123, 124 CLAMP
Q125 BUFFER
Q126-128 AMP
Q130, 131 UPPER, LOWER LIMITER
Q109 BUFFER
Q110 MIXER
Q129 CLAMP
Q113 REF. VOLTAGE BUFFER
Q111 BUFFER
Q117, 120, 122 AMP
Q116, 121, 119 AMP
AGC DET.
AMP
DELAY
BPF
IC104 V7040
IC105 MC1496M
IC108 μPC324G2
IC109 TL026CPS
IC110 TC7W04
IC107 TC74HC4053F

**DV-19 (7/7) (VIDEO (7/7) ) SCHEMATIC DIAGRAM** • See page 4-82 for PRINTED WIRING BOARD

– Ref No. DV-19 BOARD : 7,000 Seriese –



• SIGNAL PATH (ANALOG)

| VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|
| CHROMA | Y | Y/CHROMA | |
| | | | ➡ |

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

A B C D E F G H I J K

CG RESET
CG CS
CG CLK
CG DATA
VIDEO CLK
VIDEO DATA
SP CS
MA CS
MB CS
MB_SXCE
MA_SXCE
(2/7)
(1/7) (4/7)
(1/7)
(4/7)

**IC730**
MAIN MICROCOMPUTER
I/O EXPANDER
EEROM INTERFACE
EVR DAC

**IC711**
I/O EXPANDER
AUDIO SELECTOR
TRANSIENT KEY SEL

**IC703**
RESET

**IC709**
**IC710**
EEROM
SETTING DATA
TUNNING DATA
EFFECT DATA

Q701 Q702 OUTPUT BUFFER
Q703 INPUT BUFFER

CUE_IN
CUE_OUT_2
CUE_OUT_1
(2/7)

CN701 21P

| | | |
|---|---|---|
| 21 | READY | |
| 20 | GND | |
| 19 | CG DATA | |
| 18 | GND | |
| 17 | CG CS | |
| 16 | GND | |
| 15 | CG SCK | |
| 14 | R E/O | |
| 13 | RV0 | |
| 12 | GND | |
| 11 | DATA FROM MASTER | |
| 10 | GND | |
| 9 | DATA TO MASTER | |
| 8 | GND | |
| 7 | SCK | |
| 6 | GND | |
| 5 | MASTER CS | |
| 4 | RESET | |
| 3 | CUE OUT 1 | |
| 2 | CUE OUT 2 | |
| 1 | CUE IN | |

TO CP-64 BOARD CN500
(See page 4-18)

BREVEN CONT
AREVEN CONT
(4/7)

MOUT_SEL (2/7)
BLA
BLB
(4/7)

KEYSEL2
KEYSEL1
KEYSEL0
(5/7)

SOLA_ON

MEM_SCK
MEM_CS
MEM_BUSY
CO_RESET
WIP_SCK
WIP_CS
(4/7)

BUS0 BUS1 BUS2 BUS3 BUS4 BUS5 BUS6 BUS7
(4/7)

CN702

| | | |
|---|---|---|
| 10 | AU SEL A0 | |
| 9 | AU SEL A1 | |
| 8 | AU SEL B0 | |
| 7 | AU SEL B1 | |
| 6 | M-OUT SEL 0 | |
| 5 | M-OUT SEL 1 | |
| 4 | M-OUT SEL 2 | |
| 3 | GND | |
| 2 | EV AUDIO A | |
| 1 | EV AUDIO B | |

TO AM-32 BOARD CN003
(See page 4-71)

MASTERCLK (4/7)
BVOUT
AVOUT
(1/7)

BC_R
BC_G
BC_B
BC_B/W
BC_SO
(6/7)
BORON (3/7)
REVEN (4/7)
V_DET (2/7)

51 IC730 ㉕ 1V/2ms

52 IC730 ㉒ 1V/2ms

69 CN701 ⑮ 1V/5ms



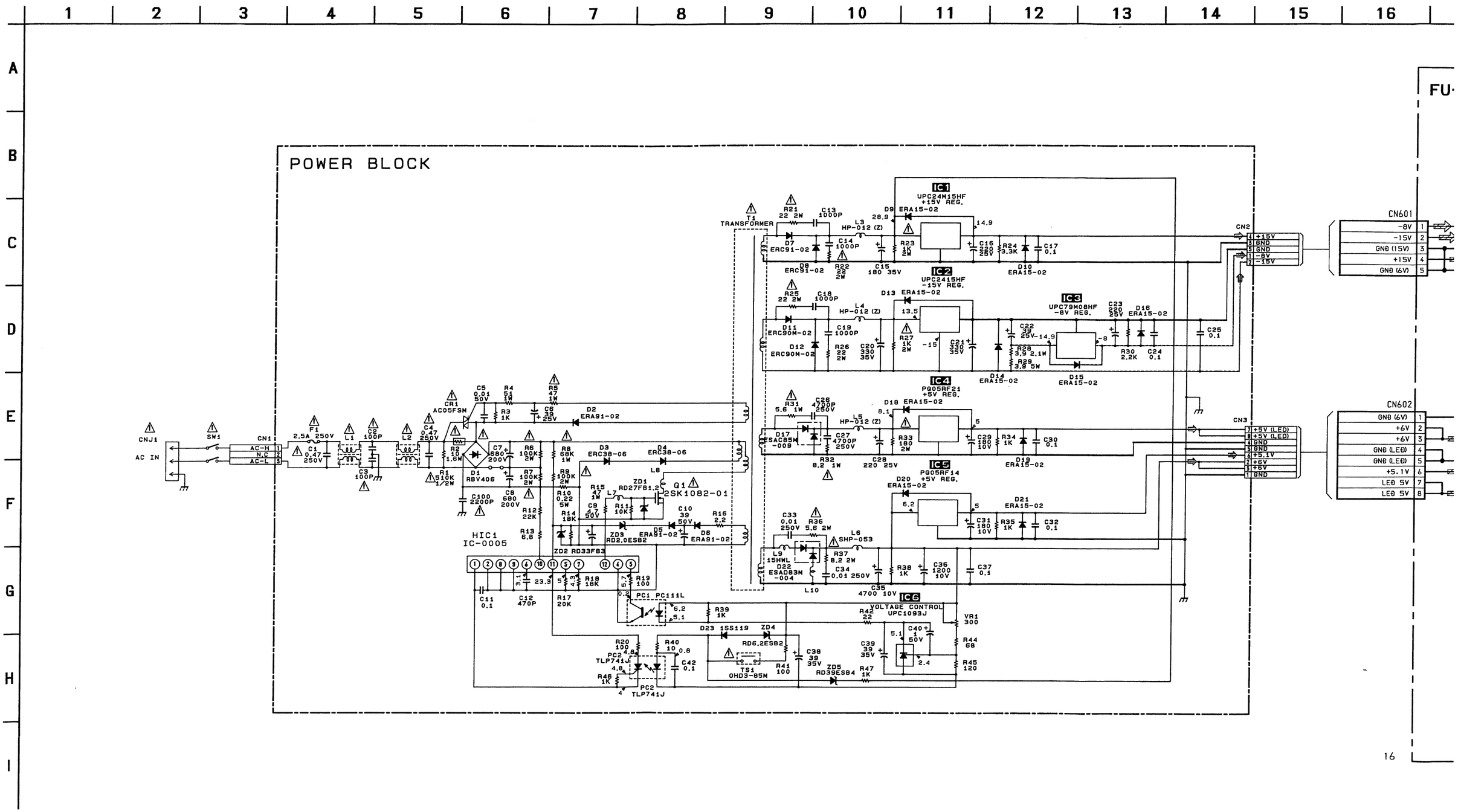


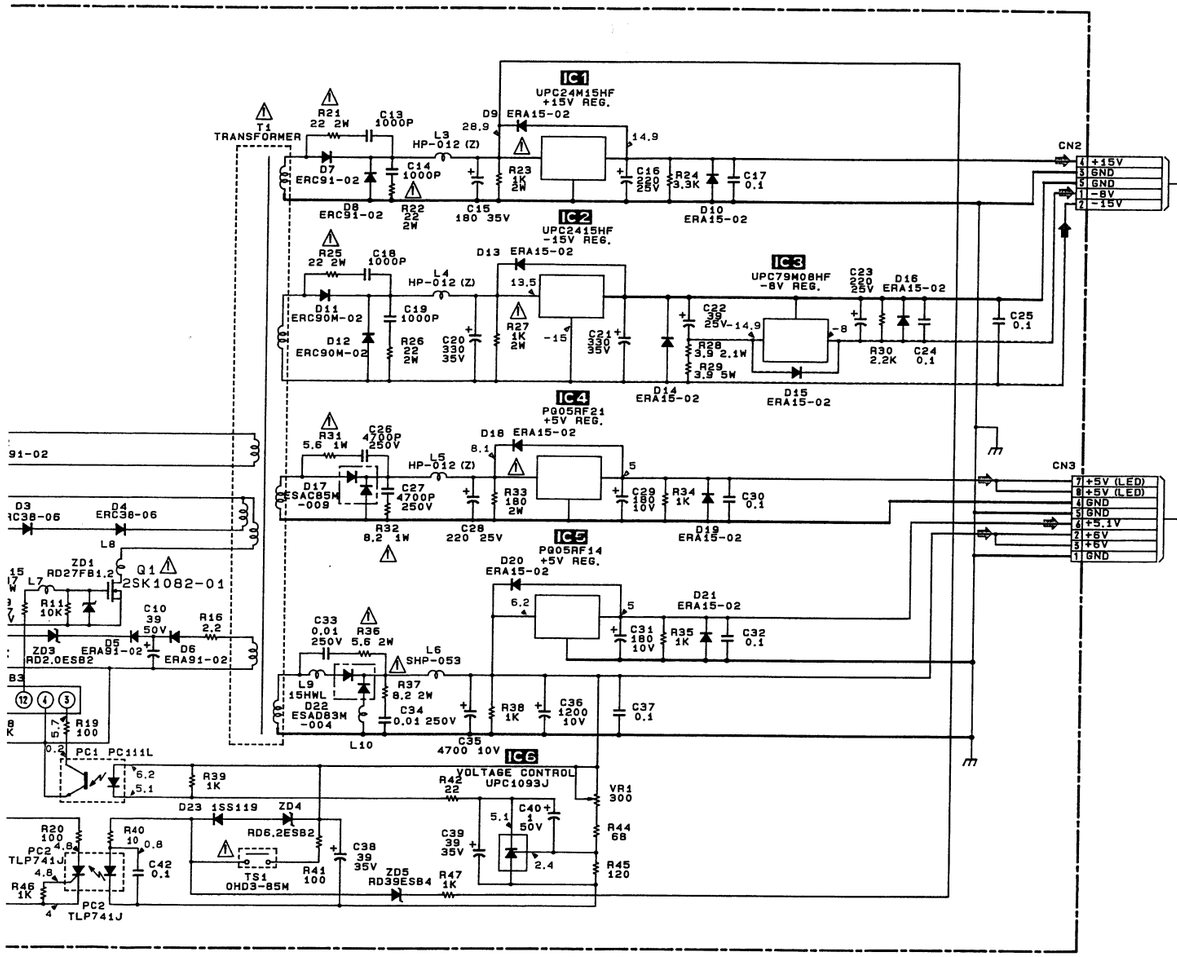
VIDEO (7/7)

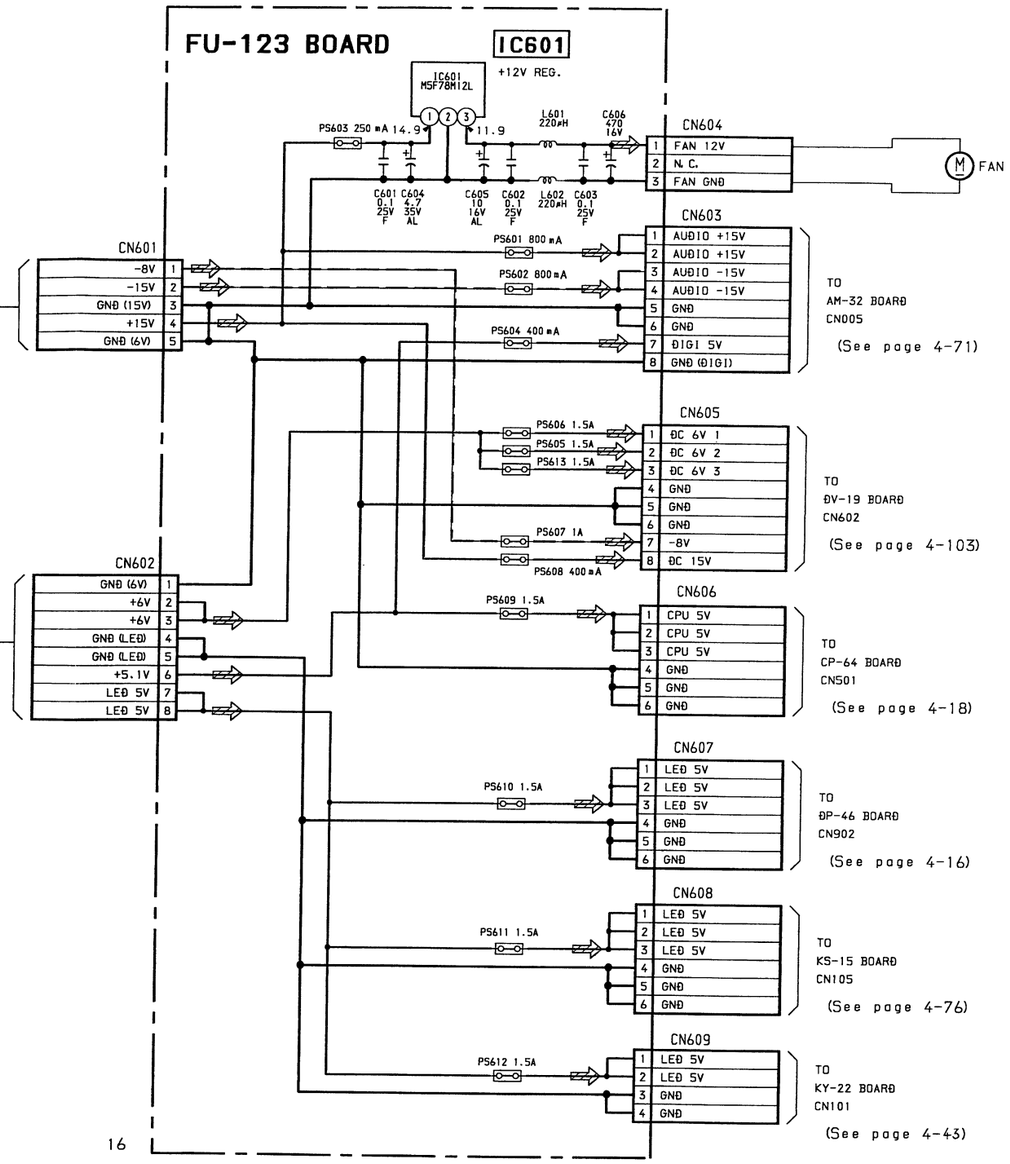
# FXE-100P

## FU-123 (FUSE) /POWER BLOCK SCHEMATIC DIAGRAM

– Ref No. FU-123 BOARD : 3,000 Seriese –





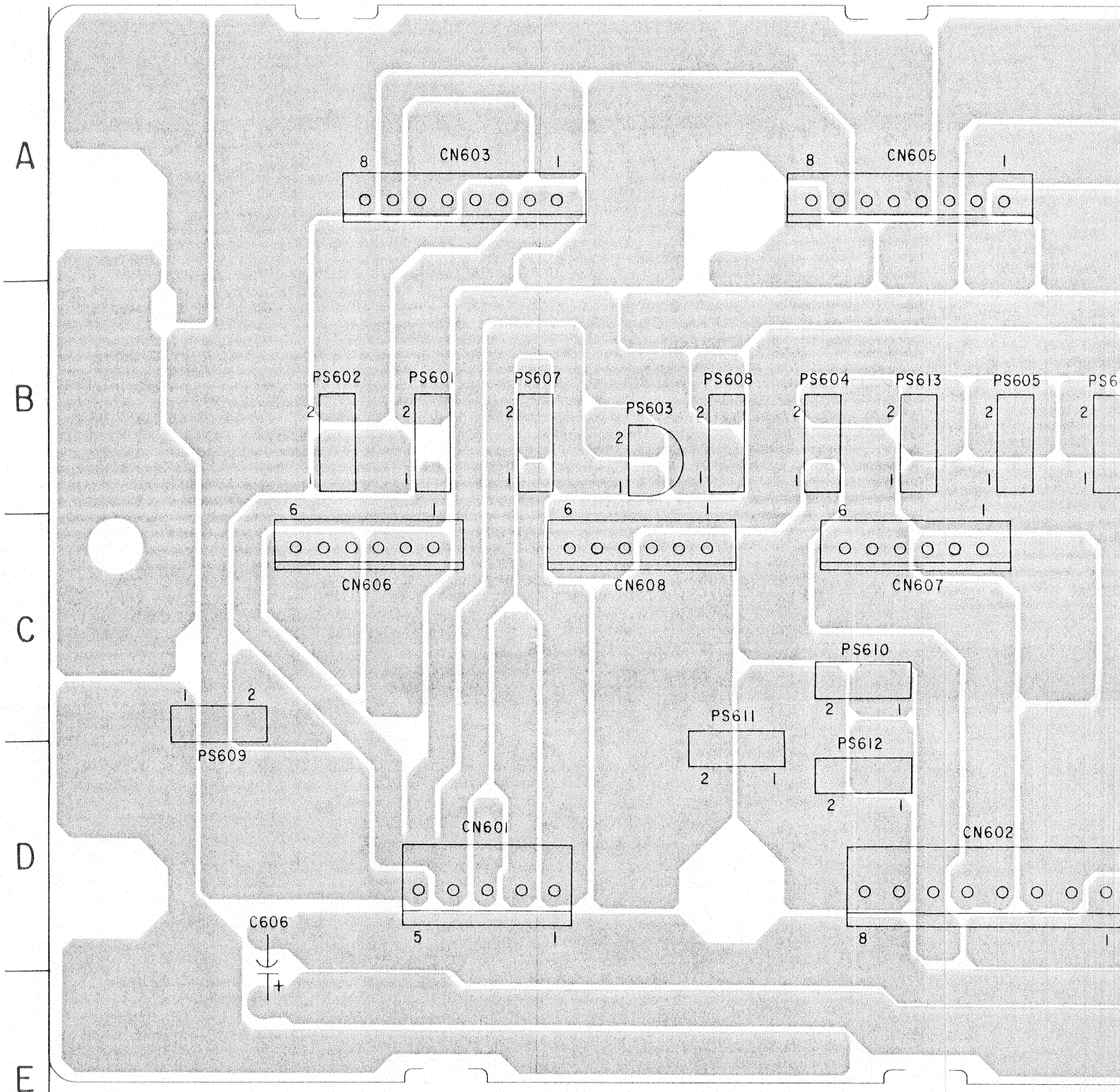




**Note:** The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

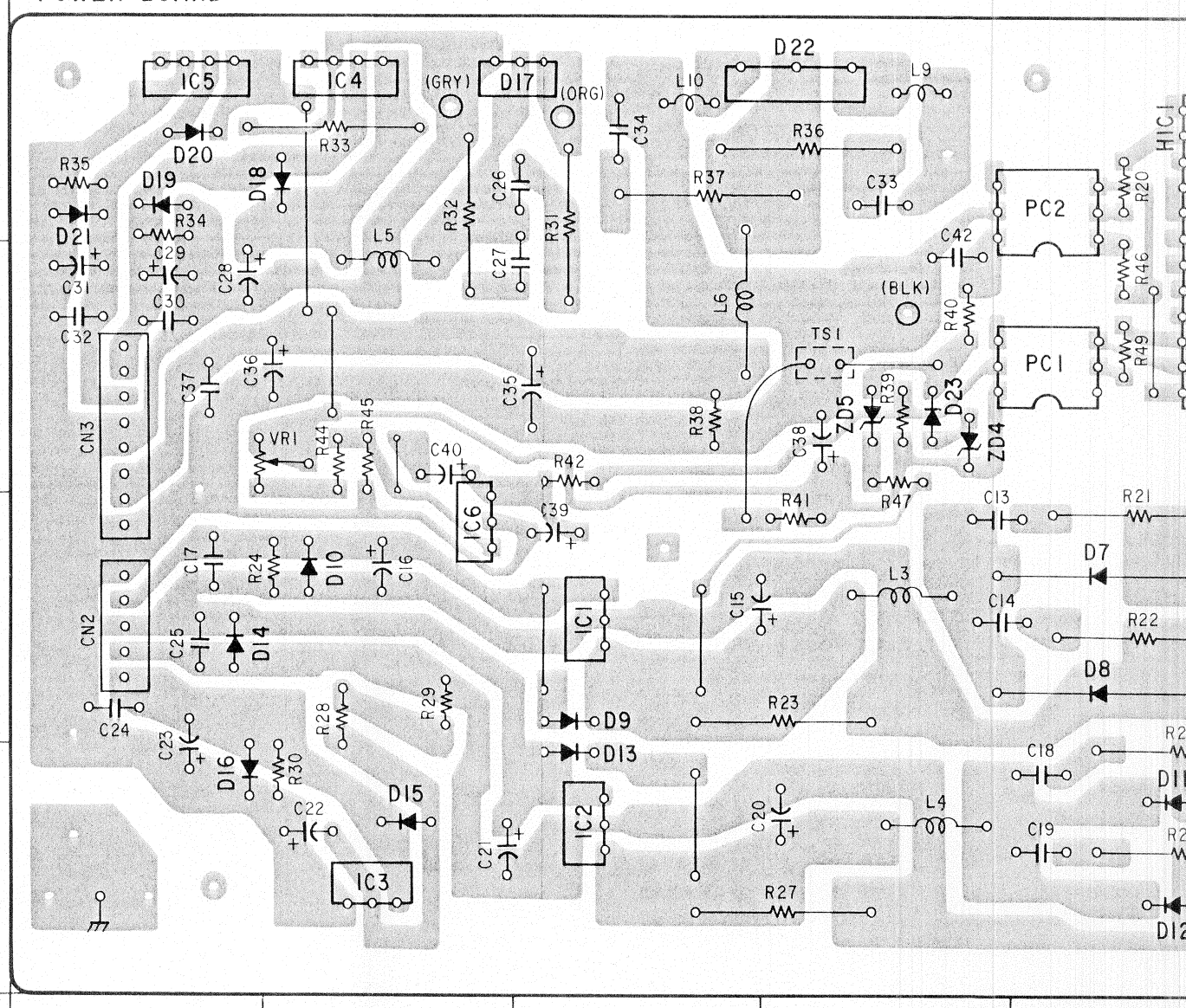
## FU-123 (FUSE) /POWER BLOCK PRINTED WIRING BOARD

– Ref No. FU-123 BOARD : 3,000 Seriese –

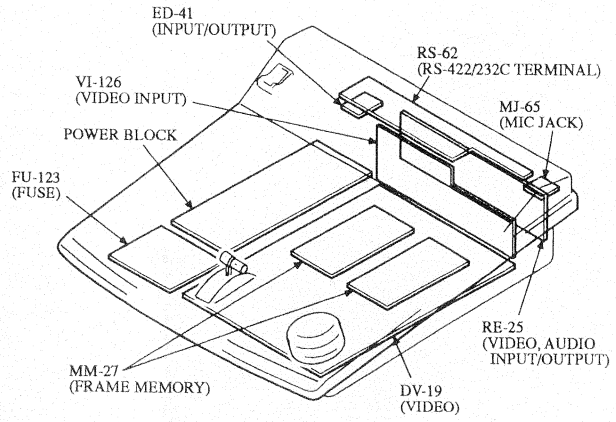
FU-123 BOARD (SIDE A)



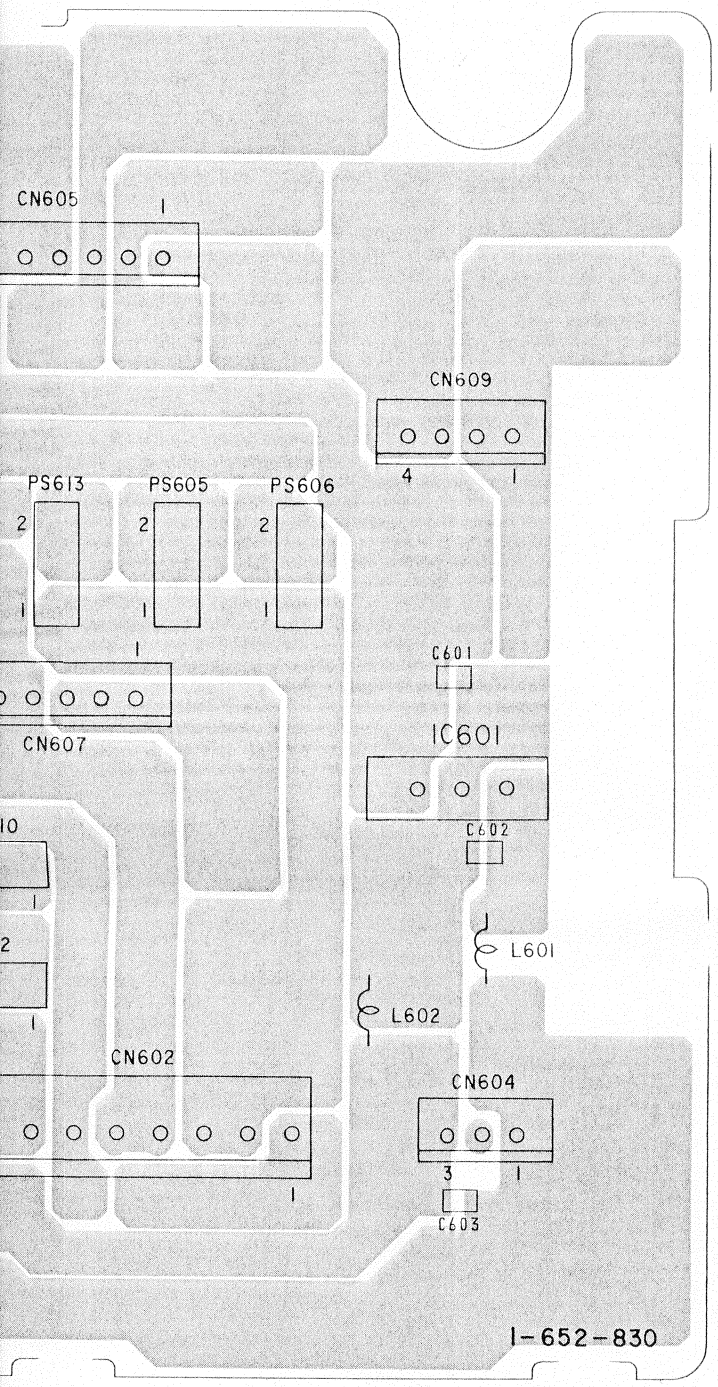

POWER BOARD

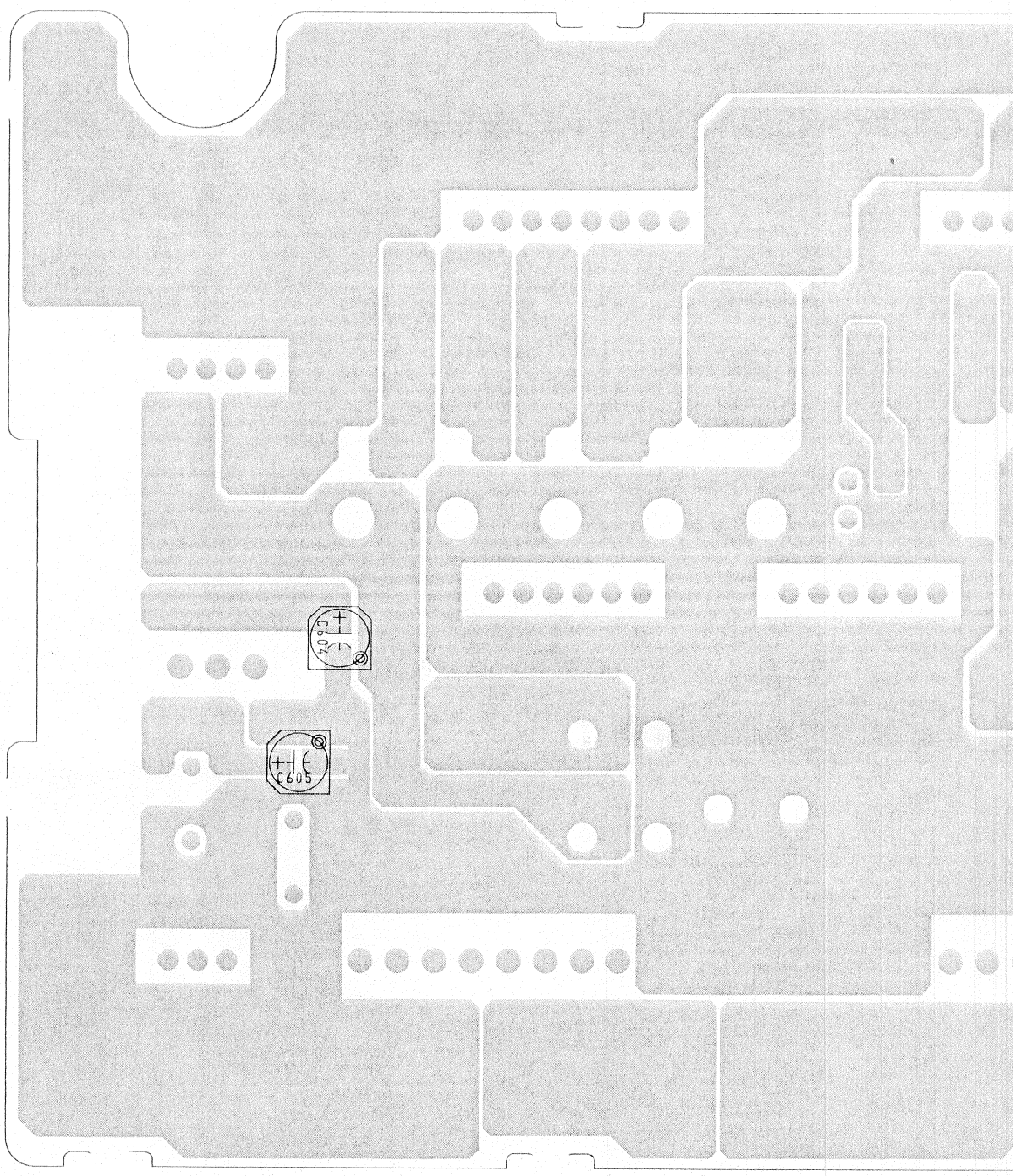


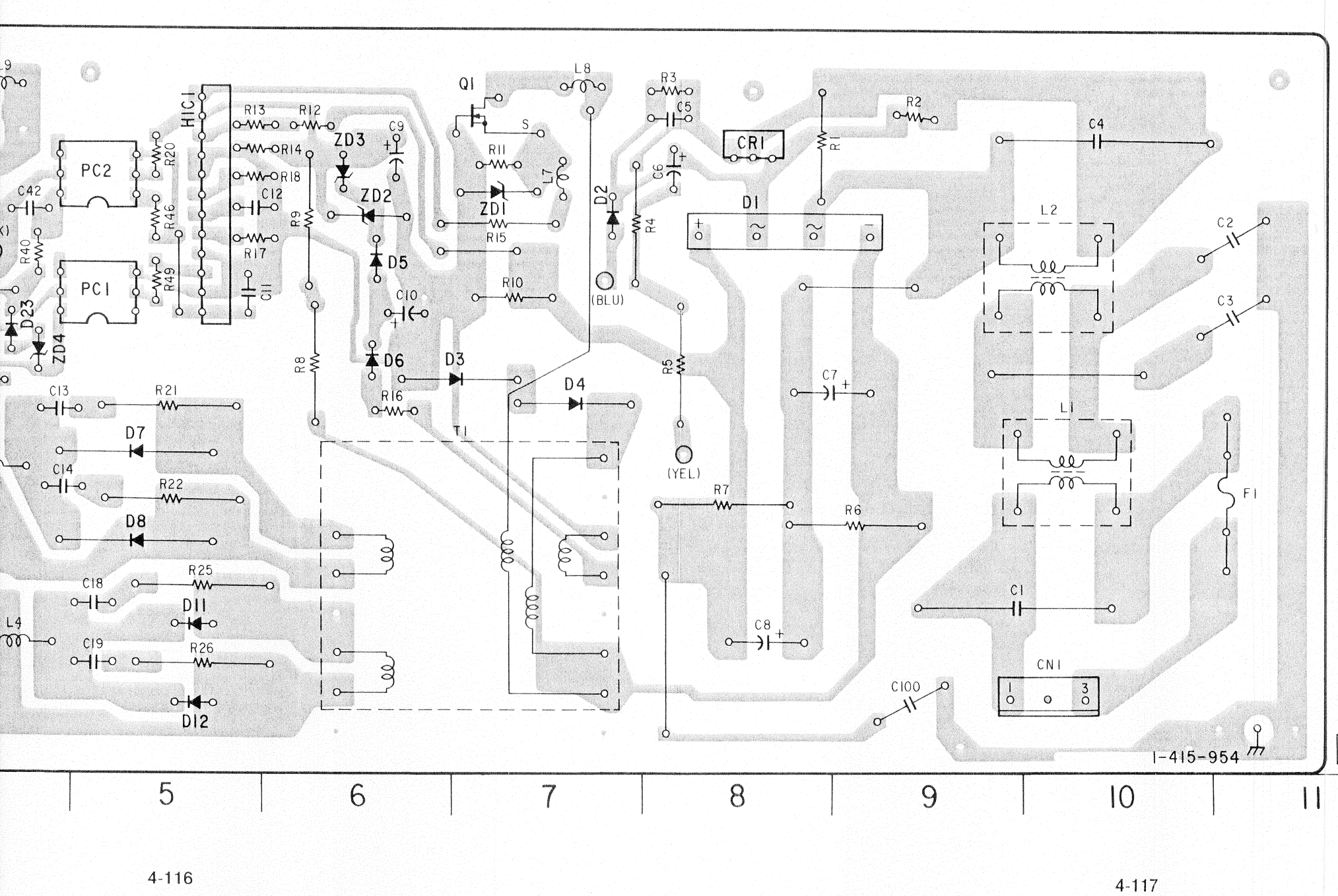

| FU-123 BOARD | | POWER BLOCK | |
|---|---|---|---|
| CN601 | D-2 | CN001 | I-10 |
| CN602 | D-4 | CN002 | H-1 |
| CN603 | A-2 | CN003 | G-1 |
| CN604 | D-6 | | |
| CN605 | A-4 | D001 | G-8 |
| CN606 | C-2 | D002 | G-7 |
| CN607 | C-4 | D003 | G-7 |
| CN608 | C-3 | D004 | H-7 |
| CN609 | B-6 | D005 | G-6 |
| | | D006 | G-6 |
| IC601 | C-6 | D007 | H-5 |
| | | D008 | H-5 |
| | | D009 | H-3 |
| | | D010 | H-2 |
| | | D011 | I-5 |
| | | D012 | I-5 |
| | | D013 | I-3 |
| | | D014 | H-1 |
| | | D015 | I-2 |
| | | D016 | I-1 |
| | | D017 | F-2 |
| | | D018 | F-2 |
| | | D019 | F-1 |
| | | D020 | F-1 |
| | | D021 | F-1 |
| | | D022 | F-4 |
| | | D023 | G-4 |
| | | IC001 | H-3 |
| | | IC002 | I-3 |
| | | IC003 | I-2 |
| | | IC004 | F-2 |
| | | IC005 | F-1 |
| | | IC006 | H-2 |
| | | Q001 | F-7 |
| | | ZD001 | F-7 |
| | | ZD002 | F-6 |
| | | ZD003 | F-6 |
| | | ZD004 | G-4 |
| | | ZD005 | G-4 |



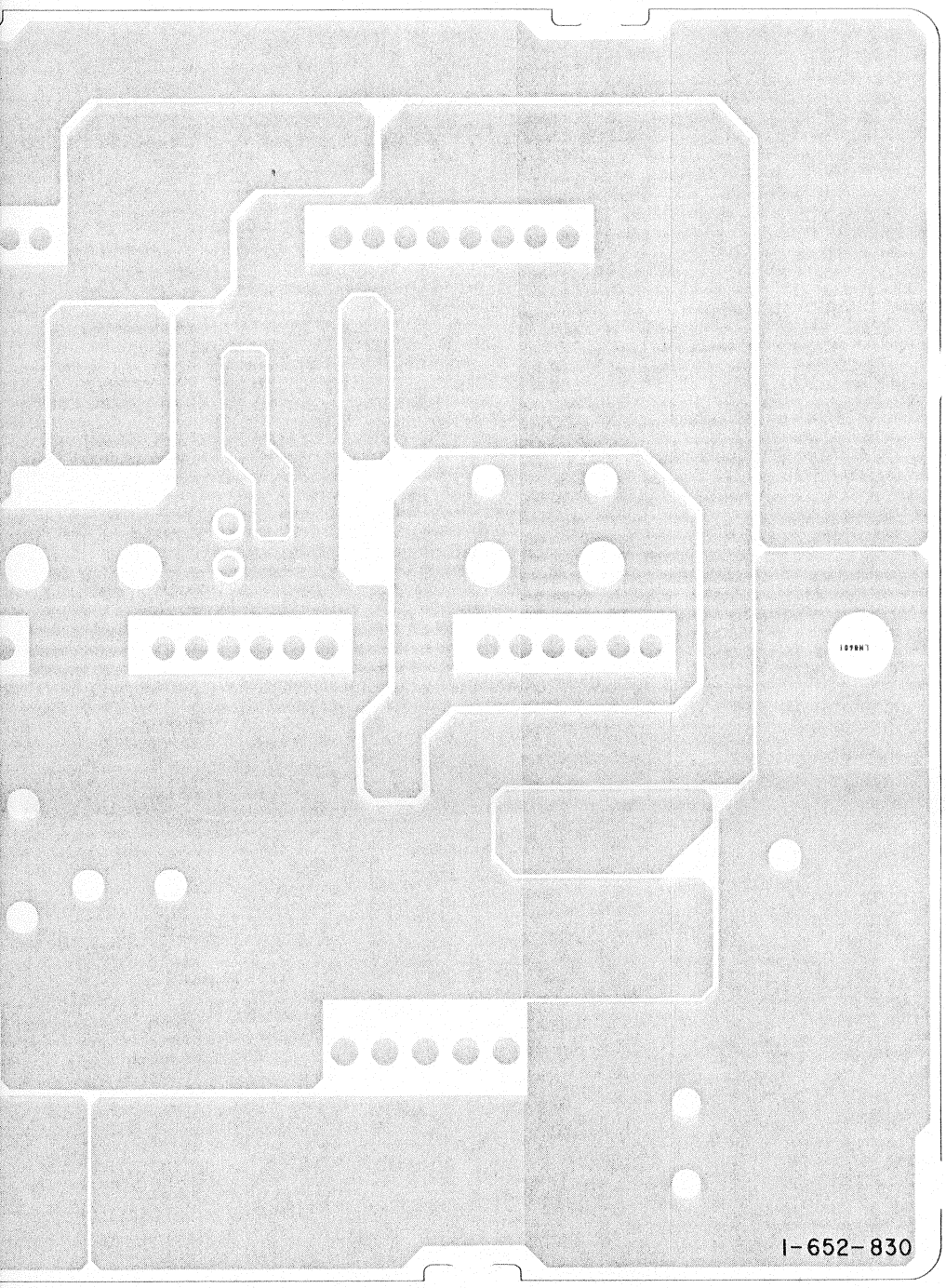
## FU-123 BOARD (SIDE B)

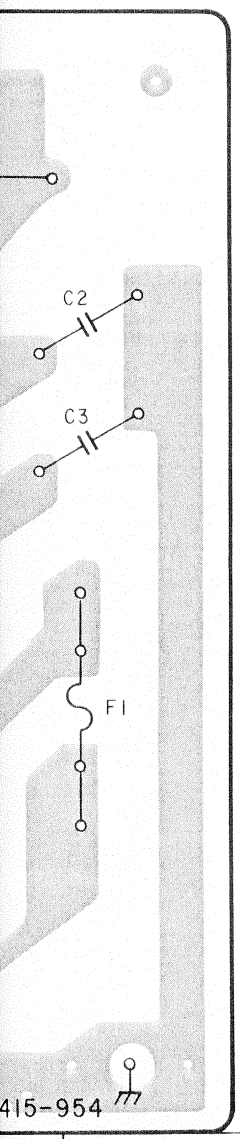



5 6 7 8 9 10 11




11 12 13



FUSE / POWER

## • Main Microcomputer (DV-19 Board IC730:M37702M4)

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 | AD A AFC | | A/D channel 0 LINE A AFC voltage check pin |
| 2 | SCROLL B CS | O | MM-27 (B) IC chip select |
| 3 | SCROLL A CS | O | MM-27 (A) IC chip select |
| 4 | | | Not used |
| 5 | | | Not used |
| 6 | RVD | I | Read system VD interrupt pin |
| 7 | MASTER CS | I | Chip select interrupt pin from CP-64 board IC500 |
| 8 | MEM B CS | O | MM-27 (B) IC301 chip select |
| 9 | MEM A CS | O | MM-27 (A) IC301 chip select |
| 10 | EE1 CS | O | EEROM1 chip select |
| 11 | EE1 RD | I | EEROM1 read data input |
| 12 | EE1 WR | O | EEROM1 write data output |
| 13 | EE1 CLK | O | EEROM1 clock |
| 14 | EE0 CS | O | EEROM0 chip select |
| 15 | EE0 RD | I | EEROM0 read data input |
| 16 | EE0 WR | O | EEROM0 write data output |
| 17 | EE0 CLK | O | EEROM0 Clock |
| 18 | | | Not used |
| 19 | VIDEO S/P CS | O | VI-126 IC208/209 serial-parallel chip select |
| 20 | DA2 LD | O | DA converter 2/3 data load timing output |
| 21 | DA2 DATA | O | DA converter 2/3 data output |
| 22 | DA2 CLK | O | DA converter 2/3 shift clock output |
| 23 | DA01 LD | O | DA converter 0/1 data load timing output |
| 24 | DA01 DATA | O | DA converter 0/1 data output |
| 25 | DA01 CLK | O | DA converter 0/1 shift clock output |
| 26 | BYTE | I | BYTE/WORD mode select pin (GND) |
| 27 | CNVSS | I | GND |
| 28 | RESET | I | Reset pin (L : reset H : operation starts.) |
| 29 | XIN | I | CPU main clock input pin (16MHz) |
| 30 | XOUT | O | CPU clock output pin (not used) |
| 31 | | O | Not used |
| 32 | VSS | I | GND |
| 33 | IORD | O | I/O expander (IC711) data read timing |
| 34 | A2 | O | I/O expander (IC711) address bus A2 |
| 35 | A1 | O | I/O expander (IC711) address bus A1 |
| 36 | A0 | O | I/O expander (IC711) address bus A0 |
| 37 | D7 | O | Wipe microprocessor, memory microprocessor data bus D7 |
| 38 | D6 | O | Wipe microprocessor, memory microprocessor data bus D6 |
| 39 | D5 | O | Wipe microprocessor, memory microprocessor data bus D5 |
| 40 | D4 | O | Wipe microprocessor, memory microprocessor data bus D4 |
| 41 | D3 | O | Wipe microprocessor, memory microprocessor data bus D3 |
| 42 | D2 | O | Wipe microprocessor, memory microprocessor data bus D2 |
| 43 | D1 | O | Wipe microprocessor, memory microprocessor data bus D1 |
| 44 | D0 | O | Wipe microprocessor, memory microprocessor data bus D0 |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 45 | IOWR | O | I/O expander (IC711) data write timing |
| 46 | IOCS | O | I/O expander (IC711) chip select |
| 47 | WIPE CS | O | Wipe microprocessor chip select |
| 48 | WIPE CLK | O | Wipe microprocessor data load timing clock |
| 49 | CO RESET | O | Reset pulse output to wipe microprocessor, memory microprocessor |
| 50 | MEM BUSY | I | Memory microprocessor busy (notifying the period of time when data reception is impossible) |
| 51 | MEM CS | O | Memory microprocessor chip select |
| 52 | MEM CLK | O | Memory microprocessor data load timing clock |
| 53 | I/O7 | I/O | I/O expander data bus D7 |
| 54 | I/O6 | I/O | I/O expander data bus D6 |
| 55 | I/O5 | I/O | I/O expander data bus D5 |
| 56 | I/O4 | I/O | I/O expander data bus D4 |
| 57 | I/O3 | I/O | I/O expander data bus D3 |
| 58 | I/O2 | I/O | I/O expander data bus D2 |
| 59 | I/O1 | I/O | I/O expander data bus D1 |
| 60 | I/O0 | I/O | I/O expander data bus D0 |
| 61 | TXD1 | O | Video signal serial data (MM-27, VI-126) |
| 62 | RXD1 | I | Serial data input (not used) |
| 63 | CLK1 | O | Video signal serial transfer clock |
| 64 | RTS1 • CTS1 | I/O | Serial port 1 send/receive status (not used) |
| 65 | SOUT0 | O | Master microprocessor (CP64IC500) serial communication data output |
| 66 | SIN0 | I | Master microprocessor (CP64IC500) serial communication data input |
| 67 | CLK0 | I | Master microprocessor (CP64IC500) serial communication data clock input |
| 68 | RTS0 | O | Master microprocessor (CP64IC500) serial communication data enable (ready) pin |
| 69 | VCC | I | Digital circuit power supply (5V) |
| 70 | AVCC | I | Analog circuit power supply (A/D converter 5V) |
| 71 | VREF | I | Conversion reference voltage (5V) for A/D converter |
| 72 | AVSS | I | Analog circuit GND |
| 73 | VSS | I | Digital circuit GND |
| 74 | AN7 | | A/D converter channel 7 input pin (not used) |
| 75 | AN6 | | A/D converter channel 6 input pin (not used) |
| 76 | AN5 | | A/D converter channel 5 input pin (not used) |
| 77 | AN4 | | Channel 4 EVR36 analog port voltage monitoring |
| 78 | AN3 | | Channel 3 burst SC PLL control voltage check pin |
| 79 | AN2 | | Channel 2 PAL 908FH control voltage check pin |
| 80 | AN1 | | Channel 1 LINE B AFC voltage check pin |

## • I/O Expander (DV-19 board IC711:CXD1095Q)

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 | No connection | | No connection |
| 2 | No connection | | No connection |
| 3 | BC G | O | Border color (green) |
| 4 | BC B | O | Border color (blue) |
| 5 | BC B/W | O | Border color (black/white) |
| 6 | BLKA | O | Back color (H : black L : video) LINE A |
| 7 | BLKB | O | Back color (H : black L : video) LINE B |
| 8 | BC 50 | O | Border color (luminance level 50 % : -6dB) |
| 9 | BDRON | O | Border ON (border during wipe) |
| 10 | VSS | I | GND |
| 11 | READ O/E | I | Read circuit ODD/EVEN (L : ODD H : EVEN) |
| 12 | CG V DET | I | Video signal exists or not in the monitor output circuit (H : exist L : not exist) |
| 13 | A V DET | I | LINE A : video signal exists or not (H : exist L : not exist) |
| 14 | B V DET | I | LINE B : video signal exists or not (H : exist L : not exist) |
| 15 | CUE OUT 1 | I | CUE OUT 1 signal timing (master microprocessor outputs the signal) |
| 16 | CUE OUT 2 | I | CUE OUT 2 signal timing (master microprocessor outputs the signal) |
| 17 | CUE IN | I | CUE IN signal timing (input from external peripherals) |
| 18 | PAL/NT | I | H = PAL L = NTSC |
| 19 | No connection | | No connection |
| 20 | K0 | O | Wipe or mix key select BIT 0 |
| 21 | K1 | O | Wipe or mix key select BIT 1 |
| 22 | K2 | O | Wipe or mix key select BIT 2 |
| 23 | SOLA ON | O | Gate array key of the chroma key and luminance key switch ON |
| 24 | MOUT SEL | O | Monitor output select (H : program out L : source) |
| 25 | VSS | I | GND |
| 26 | VDD | I | Power supply (5V) |
| 27 | | | Not used |
| 28 | | | Not used |
| 29 | | | Not used |
| 30 | D0 | I/O | Main microprocessor data bus D0 |
| 31 | D1 | I/O | Main microprocessor data bus D1 |
| 32 | D2 | I/O | Main microprocessor data bus D2 |
| 33 | No connection | | No connection |
| 34 | No connection | | No connection |
| 35 | D3 | I/O | Main microprocessor data bus D3 |
| 36 | D4 | I/O | Main microprocessor data bus D4 |
| 37 | D5 | I/O | Main microprocessor data bus D5 |
| 38 | D6 | I/O | Main microprocessor data bus D6 |
| 39 | D7 | I/O | Main microprocessor data bus D7 |
| 40 | CLR | I | Clear pin |
| 41 | ODEN | I | High output impedance at each port |
| 42 | VSS | I | GND |
| 43 | WR | I | Main microprocessor communication timing (write) |
| 44 | RD | I | Main microprocessor communication timing (read) |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 45 | CS | I | Main microprocessor communication chip select |
| 46 | A0 | I | Main microprocessor communication address bus A0 |
| 47 | A1 | I | Main microprocessor communication address bus A1 |
| 48 | A2 | I | Main microprocessor communication address bus A2 |
| 49 | | | Not used |
| 50 | | | Not used |
| 51 | No connection | | No connection |
| 52 | | | Not used |
| 53 | | | Not used |
| 54 | M0 | O | Audio monitor output select BIT 0 |
| 55 | M1 | O | Audio monitor output select BIT 1 |
| 56 | M2 | O | Audio monitor output select BIT 2 |
| 57 | VSS | I | GND |
| 58 | VDD | I | Power supply (5V) |
| 59 | | | Not used |
| 60 | B0 | O | Audio B bus source select BIT 0 |
| 61 | B1 | O | Audio B bus source select BIT 1 |
| 62 | A0 | O | Audio A bus source select BIT 0 |
| 63 | A1 | O | Audio A bus source select BIT 1 |
| 64 | BC R | O | Border color (red) |

### • DA Converter (DV-19 board IC704:M62352)

| Pin No. | Pin Name | Description |
|---|---|---|
| 2 | EV27 | Color plus LINE A (red) |
| 3 | EV28 | Color plus LINE A (blue) |
| 4 | EV29 | Video setup level |
| 5 | EV30 | Video white level |
| 6 | EV31 | Video sync level |
| 7 | | |
| 8 | | |
| 9 | | |
| 12 | | |
| 13 | EV36 | Connected to the main microprocessor (for checking D/A converter operation) |
| 18 | EV25 | Color correction (red) |
| 19 | EV26 | Color correction (blue) |

### • DA Converter (DV-19 board IC705:M62352)

| Pin No. | Pin Name | Description |
|---|---|---|
| 2 | EV3 | Write circuit Y level adjustment LINE A |
| 3 | EV4 | Write circuit Y level adjustment LINE B |
| 4 | EV5 | Read circuit Y level adjustment LINE A |
| 5 | EV6 | Read circuit Y level adjustment LINE B |
| 6 | EV7 | Fader Y level adjustment LINE A (not used) |
| 7 | EV8 | Fader Y level adjustment LINE B (not used) |
| 8 | EV9 | Center adjustment LINE A |
| 9 | EV10 | Center adjustment LINE B |
| 12 | EV11 | Audio attenuation level LINE A |
| 13 | EV12 | Audio attenuation level LINE B |
| 18 | EV1 | Y/C separation Y level adjustment LINE A |
| 19 | EV2 | Y/C separation Y level adjustment LINE B |

### • DA Converter (DV-19 board IC706:M62352)

| Pin No. | Pin Name | Description |
|---|---|---|
| 2 | EV15 | Write circuit C level adjustment LINE A |
| 3 | EV16 | Write circuit C level adjustment LINE B |
| 4 | EV17 | Read circuit C level adjustment LINE A |
| 5 | EV18 | Read circuit C level adjustment LINE B |
| 6 | EV19 | Fader C level adjustment LINE A (not used) |
| 7 | EV20 | Fader C level adjustment LINE B (not used) |
| 8 | EV21 | HUE adjustment LINE A |
| 9 | EV22 | HUE adjustment LINE B |
| 12 | EV23 | Video mix level LINE A |
| 13 | EV24 | Video mix level LINE B |
| 18 | EV13 | Y/C separation C level adjustment LINE A |
| 19 | EV14 | Y/C separation C level adjustment LINE B |

### • DA Converter (DV-19 board IC707:M62352)

| Pin No. | Pin Name | Description |
|---|---|---|
| 2 | EV39 | Color plus LINE B (red) |
| 3 | EV40 | Color plus LINE B (blue) |
| 4 | EV41 | Chroma key comparator level (threshold level) |
| 5 | | |
| 6 | EV43 | Border color luminance level adjustment |
| 7 | EV44 | Border color chrominance level adjustment |
| 8 | | |
| 9 | | |
| 12 | EV48 | A-bus APL adjustment during soft wipe |
| 13 | | |
| 18 | EV37 | Chroma key color information (red) |
| 19 | EV38 | Chroma key color information (blue) |

## • Master Microcomputer (CP-64 board IC500:M37732S4AFP)

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 | AN0 | I | CXD1500Q (67pin) during "H" output |
| 2 | TB2IN | O | CXD1500Q (67pin) during "L" output |
| 3 | TB1IN | O | Not used |
| 4 | TB0IN | O | Not used |
| 5 | $\overline{\text{UART2 INT}}$ | I | "L" level interrupt |
| 6 | $\overline{\text{CXD15 INT}}$ | I | "L" level interrupt |
| 7 | $\overline{\text{UART1 INT}}$ | I | "L" level interrupt |
| 8 | TA4IN | O | Not used |
| 9 | TA4OUT | O | Not used |
| 10 | TA3IN | I | Not used |
| 11 | BUZZER OUT | O | BUZZER OUT |
| 12 | TA2IN | I | Not used |
| 13 | TA2OUT | O | Not used |
| 14 | TA1IN | I | Not used |
| 15 | TA1OUT | O | Not used |
| 16 | RVD | I | ↓ edge interrupt |
| 17 | TA0OUT | O | Not used |
| 18 | $\overline{\text{CG CS}}$ | O | Chip select (active "L") |
| 19 | $\overline{\text{EE CS}}$ | O | Chip select (active "L") |
| 20 | $\overline{\text{BUSY}}$ | I | READY, $\overline{\text{BUSY}}$ status signal input |
| 21 | EERST | O | Reset output (active "H") |
| 22 | $\overline{\text{OSDCS}}$ | O | Chip select (active "L") |
| 23 | 0 | O | X/2 output |
| 24 | $\overline{\text{RDY}}$ | I | CPU is ready state during "L" level |
| 25 | $\overline{\text{HOLD}}$ | I | |
| 26 | BYTE | I | External data width →16 bit width |
| 27 | CNVSS | I | |
| 28 | $\overline{\text{RESET}}$ | I | Reset input |
| 29 | X IN | I | Input/output to and from internal clock generator circuit (16MHz) |
| 30 | X OUT | O | Input/output to and from internal clock generator circuit (16MHz) |
| 31 | $\overline{\text{E}}$ | O | Reading the data or the instruction code, or data write is executed during "L" level. |
| 32 | VSS | | |
| 33 | $\overline{\text{HLDA}}$ | O | "L" level is output during holding time. |
| 34 | ALE | O | Used to read address only from the multiplexed signal of address and data. |
| 35 | $\overline{\text{BHE}}$ | O | When accessing to odd numbered address, this pin goes to "L" level. |
| 36 | R/$\overline{\text{W}}$ | O | Reading during "H"level.<br>Writing during "L"level. |
| 37 | A23/D7 | I/O | When $\overline{\text{E}}$ output is "L", the data bus lower 8 bits are output.<br>When $\overline{\text{E}}$ output is "H", the address bus higher 8 bits are output. |
| 38 | A22/D6 | I/O | |
| 39 | A21/D5 | I/O | |
| 40 | A20/D4 | I/O | |
| 41 | A19/D3 | I/O | |
| 42 | A18/D2 | I/O | |
| 43 | A17/D1 | I/O | |
| 44 | A16/D0 | I/O | |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 45 | A15/D15 | I/O | When $\overline{\text{E}}$ output is "L", the data bus higher 8 bits are output.<br>When $\overline{\text{E}}$ output is "H", the address bus middle 8 bits are output. |
| 46 | A14/D14 | I/O | |
| 47 | A13/D13 | I/O | |
| 48 | A12/D12 | I/O | |
| 49 | A11/D11 | I/O | |
| 50 | A10/D10 | I/O | |
| 51 | A9/D9 | I/O | |
| 52 | A8/D8 | I/O | |
| 53 | A7 | O | The address bus lower 8 bits are output. |
| 54 | A6 | O | |
| 55 | A5 | O | |
| 56 | A4 | O | |
| 57 | A3 | O | |
| 58 | A2 | O | |
| 59 | A1 | O | |
| 60 | A0 | O | |
| 61 | TXD1 | O | Serial data output pin |
| 62 | RXD1 | I | Serial data input pin |
| 63 | CLK1 | O | Serial clock output pin |
| 64 | $\overline{\text{RTS1}}$ | O | |
| 65 | TXD0 | O | Serial data output pin |
| 66 | RXD0 | I | Serial data input pin |
| 67 | CLK0 | O | Serial clock output pin |
| 68 | $\overline{\text{CTS0}}$ | I | |
| 69 | VCC | | Receive status |
| 70 | AVCC | | Power voltage input pin to the A/D converter |
| 71 | VREF | I | Reference voltage input pin to the A/D converter |
| 72 | AVSS | | Power voltage input pin to the A/D converter |
| 73 | VSS | | |
| 74 | AN7 | I | |
| 75 | AN6 | I | During "H" output of CXD1500Q (67pin)<br>During "L" output of CXD1500Q (67pin) |
| 76 | AN5 | I | During "L" output of CXD1500Q (67pin)<br>During "L" output of CXD1500Q (67pin) |
| 77 | AN4 | I | During "L" output of CXD1500Q (67pin)<br>During "L" output of CXD1500Q (67pin) |
| 78 | AN3 | I | During "L" output of CXD1500Q (67pin)<br>During "L" output of CXD1500Q (67pin) |
| 79 | AN2 | I | During "L" output of CXD1500Q (67pin)<br>During "L" output of CXD1500Q (67pin) |
| 80 | AN1 | I | During "L" output of CXD1500Q (67pin)<br>During "L" output of CXD1500Q (67pin) |

## • CPG, PTC, PIU, ICU (CP-64 board IC518:CXD1500Q)

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 | F/$\overline{X}$ | I | Internal oscillator clock and external clock input select pin |
| 2 | X1 | I | Connect an external crystal oscillator (14.7456MHz) |
| 3 | X2 | I | Connect an external crystal oscillator (14.7456MHz) |
| 4 | OSC | O | The same frequency as the crystal oscillator is output from this pin. |
| 5 | RESET | O | Power-ON reset signal output pin |
| 6 | $\overline{RESIN}$ | I | Reset input. |
| 7 | GND | | |
| 8 | $\overline{RD}$ | I | Read-out control common input pin |
| 9 | $\overline{WR}$ | I | Write-down control common input pin |
| 10 | A0 | I | Common address input pin : A1 |
| 11 | A1 | I | Common address input pin : A2 |
| 12 | $\overline{CS\ 54}$ | I | PTC block select input pin |
| 13 | $\overline{CS\ 55}$ | I | PIU block select input pin |
| 14 | $\overline{CS\ 59}$ | I | ICU block select input pin |
| 15 | D0 | I/O | Data input and output pins between MPU and each internal functional blocks |
| 16 | D1 | I/O | |
| 17 | D2 | I/O | |
| 18 | D3 | I/O | |
| 19 | D4 | I/O | |
| 20 | D5 | I/O | |
| 21 | D6 | I/O | |
| 22 | D7 | I/O | |
| 23 | $\overline{INTAK}$ | I | |
| 24 | GND | | |
| 25 | INTP0 | I | "H" level interrupt |
| 26 | INTP1 | I | "H" level interrupt |
| 27 | INTP2 | I | "H" level interrupt |
| 28 | INTP3 | I | "H" level interrupt |
| 29 | INTP4 | I | Not used |
| 30 | INTP5 | I | Not used |
| 31 | INTP6 | I | Asynchronous type interrupt request input pin |
| 32 | INTP7 | I | |
| 33 | VDD | | |
| 34 | INT | O | Interrupt request output pin |
| 35 | $\overline{SV}$ | I | |
| 36 | SA0 | O | |
| 37 | SA1 | O | |
| 38 | SA2 | O | |
| 39 | CLK0 | I | Clock input pin to the $\phi$ counter |
| 40 | GATE0 | I | Input pin which controls the count inhibit and count initialize of the $\phi$ counter. |
| 41 | OUT0 | O | 614.4kHz which generates the clock rate of $\mu$PD72001 |
| 42 | CLK1 | I | Same as the CLK0 |
| 43 | GATE1 | I | Same as the GATE0 |
| 44 | OUT1 | O | 2MHz system clock output to TMP82C79M |
| 45 | GND | | |
| 46 | CLK2 | I | Same as the CLK0 |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 47 | GATE2 | I | Same as the GATE0 |
| 48 | OUT2 | O | Same as the OUT0 |
| 49 | DT0 | I | DT0 |
| 50 | DT1 | I | DT1 |
| 51 | DT2 | I | DT2 |
| 52 | DT3 | I | DT3 |
| 53 | DT4 | I | DT4 |
| 54 | DT5 | I | DT5 |
| 55 | H. JOG | I | H. JOG |
| 56 | FWD/REW | I | FWD/REV |
| 57 | CUE IN | I | CUE IN |
| 58 | R E/O | I | EVEN/ODD (not used) |
| 59 | P12 | I | Not used |
| 60 | P13 | I | Not used |
| 61 | P14 | I | Not used |
| 62 | P15 | I | Not used |
| 63 | P16 | I | Not used |
| 64 | NT/PAL | I | NTSC/PAL = "L/H" |
| 65 | GND | | |
| 66 | BUZZER ON | O | ON/OFF = "H/L" |
| 67 | CONT | O | A/D converter type select |
| 68 | CUE OUT2 | O | CUE OUT2 |
| 69 | CUE OUT1 | O | CUE OUT1 |
| 70 | $\overline{MASTER\ CS}$ | O | Chip select (active "L") |
| 71 | $\overline{LED\ ON}$ | O | ON/OFF = "L/H" |
| 72 | P26 | O | |
| 73 | VDD | | |
| 74 | P27 | O | Port 2 output pin |
| 75 | CLK | O | 4.9152MHz system clock output to $\mu$PD72001 |
| 76 | READY | O | Output signal which is generated by synchronizing the RDY input signal. |
| 77 | RDY | I | Ready signal input pin on the system bus |
| 78 | EXFS | I | Clock signal input pin when the external clock signal is used as the oscillator. |
| 79 | PRCLK | O | 2.4576MHz fundamental clock output to PTC counter # 0. |
| 80 | CKSYN | I | Input pin when multiple clock pulse generators are synchronized. |

**• OSD Microprocessor (CP-64 board IC501:CXP80P116Q-1)**

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 | PA1 | O | 8-bit output port (port A) |
| 2 | PA0 | O | 8-bit output port (port A) |
| 3 | PB7 | O | 8-bit output port (port B) |
| 4 | PB6 | O | 8-bit output port (port B) |
| 5 | PB5 | O | 8-bit output port (port B) |
| 6 | PB4 | O | 8-bit output port (port B) |
| 7 | PB3 | O | 8-bit output port (port B) |
| 8 | PB2 | O | 8-bit output port (port B) |
| 9 | PB1 | O | 8-bit output port (port B) |
| 10 | PB0 | O | 8-bit output port (port B) |
| 11 | PC7 | O | 8-bit output port (port C) |
| 12 | PC6 | O | 8-bit output port (port C) |
| 13 | PC5 | O | 8-bit output port (port C) |
| 14 | PC4 | O | 8-bit output port (port C) |
| 15 | PC3 | O | 8-bit output port (port C) |
| 16 | PC2 | O | 8-bit output port (port C) |
| 17 | PC1 | O | 8-bit output port (port C) |
| 18 | PC0 | O | 8-bit output port (port C) |
| 19 | PD7 | O | 8-bit output port (port D) |
| 20 | PD6 | O | 8-bit output port (port D) |
| 21 | PD5 | O | 8-bit output port (port D) |
| 22 | PD4 | O | 8-bit output port (port D) |
| 23 | PD3 | O | 8-bit output port (port D) |
| 24 | DBG | O | Monitor output pin for debugging |
| 25 | $\overline{\text{CG CS}}$ | O | Chip select (active "L") |
| 26 | $\overline{\text{CG SCK}}$ | O | Serial clock output |
| 27 | PH3 | O | 4-bit output port (port H) |
| 28 | PH2 | O | 4-bit output port (port H) |
| 29 | PH1 | O | 4-bit output port (port H) |
| 30 | PH0 | O | 4-bit output port (port H) |
| 31 | MP | I | Single chip mode at "L" level |
| 32 | $\overline{\text{RST}}$ | I | Reset input |
| 33 | VSS | | |
| 34 | XTAL | O | An external crystal is connected for system clock oscillation (16MHz) |
| 35 | EXTAL | I | |
| 36 | $\overline{\text{CS0}}$ | I | Chip select (active "L") |
| 37 | SI0 | I | Not used |
| 38 | SO0 | O | Serial data output pin |
| 39 | $\overline{\text{SCK0}}$ | I | Serial clock input pin |
| 40 | $\overline{\text{CSI}}$ | I | Chip select (active "L") |
| 41 | SI1 | I | Serial data input pin |
| 42 | SO1 | O | Serial data output pin (not used) |
| 43 | $\overline{\text{SCK1}}$ | I | Serial clock input pin |
| 44 | AN7 | I | Analog signal input pin to A/D converter |
| 45 | AN6 | I | Analog signal input pin to A/D converter |
| 46 | AN5 | I | Analog signal input pin to A/D converter |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 47 | AN4 | I | Analog signal input pin to A/D converter |
| 48 | AN3 | I | Analog signal input pin to A/D converter |
| 49 | AN2 | I | Analog signal input pin to A/D converter |
| 50 | AN1 | I | Analog signal input pin to A/D converter |
| 51 | AN0 | I | Analog signal input pin to A/D converter |
| 52 | AVSS | | GND pin of A/D converter |
| 53 | AVREF | I | Reference voltage input pin to A/D converter |
| 54 | AVDD | | Positive power supply input to A/D converter |
| 55 | PG7 | I | 8 bit input port (port G) |
| 56 | PG6 | I | 8 bit input port (port G) |
| 57 | PG5 | I | 8 bit input port (port G) |
| 58 | PG4 | I | 8 bit input port (port G) |
| 59 | PG3 | I | 8 bit input port (port G) |
| 60 | PG2 | I | 8 bit input port (port G) |
| 61 | PG1 | I | 8 bit input port (port G) |
| 62 | PG0 | I | Port E (higher 6 bits are output exclusive 8 bit port) |
| 63 | PE7 | O | |
| 64 | PE6 | O | |
| 65 | PE5 | O | |
| 66 | PE4 | O | |
| 67 | PE3 | O | |
| 68 | PE2 | O | |
| 69 | $\overline{\text{INT2}}$ | I | Not used |
| 70 | $\overline{\text{INT0}}$ | I | External interrupt input pin. Fall down edge active. |
| 71 | $\overline{\text{NMI}}$ | I | Non-maskable interrupt request pin. Fall down edge active. |
| 72 | VDD | | Positive power supply input |
| 73 | VSS | | GND |
| 74 | NC | | |
| 75 | PA7 | O | 8 bit output port (port A) |
| 76 | PA6 | O | 8 bit output port (port A) |
| 77 | PA5 | O | 8 bit output port (port A) |
| 78 | PA4 | O | 8 bit output port (port A) |
| 79 | PA3 | O | 8 bit output port (port A) |
| 80 | PA2PE7 | O | 8 bit output port (port A) |

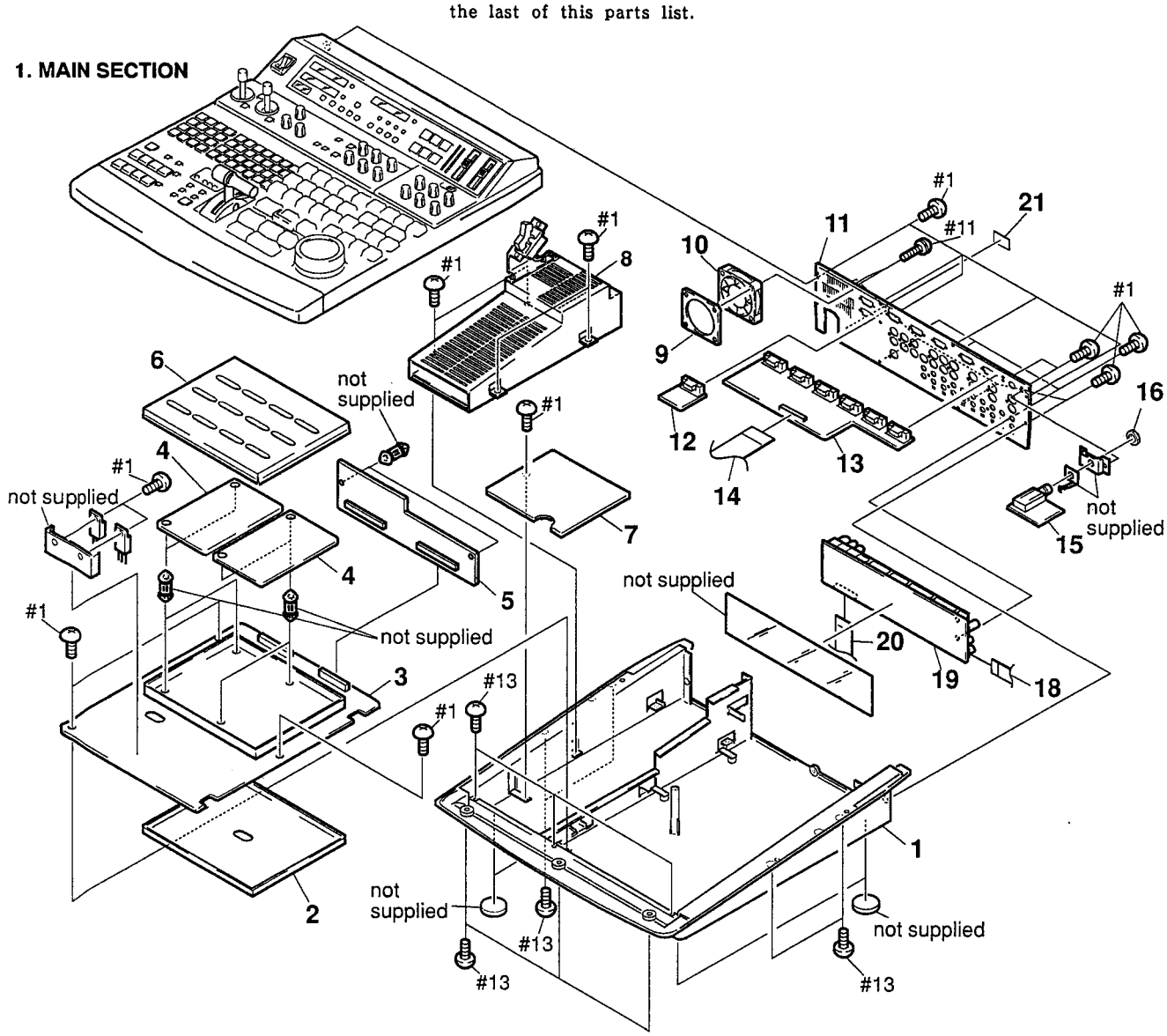
# SECTION 6
# EXPLODED VIEWS

**NOTE:**

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

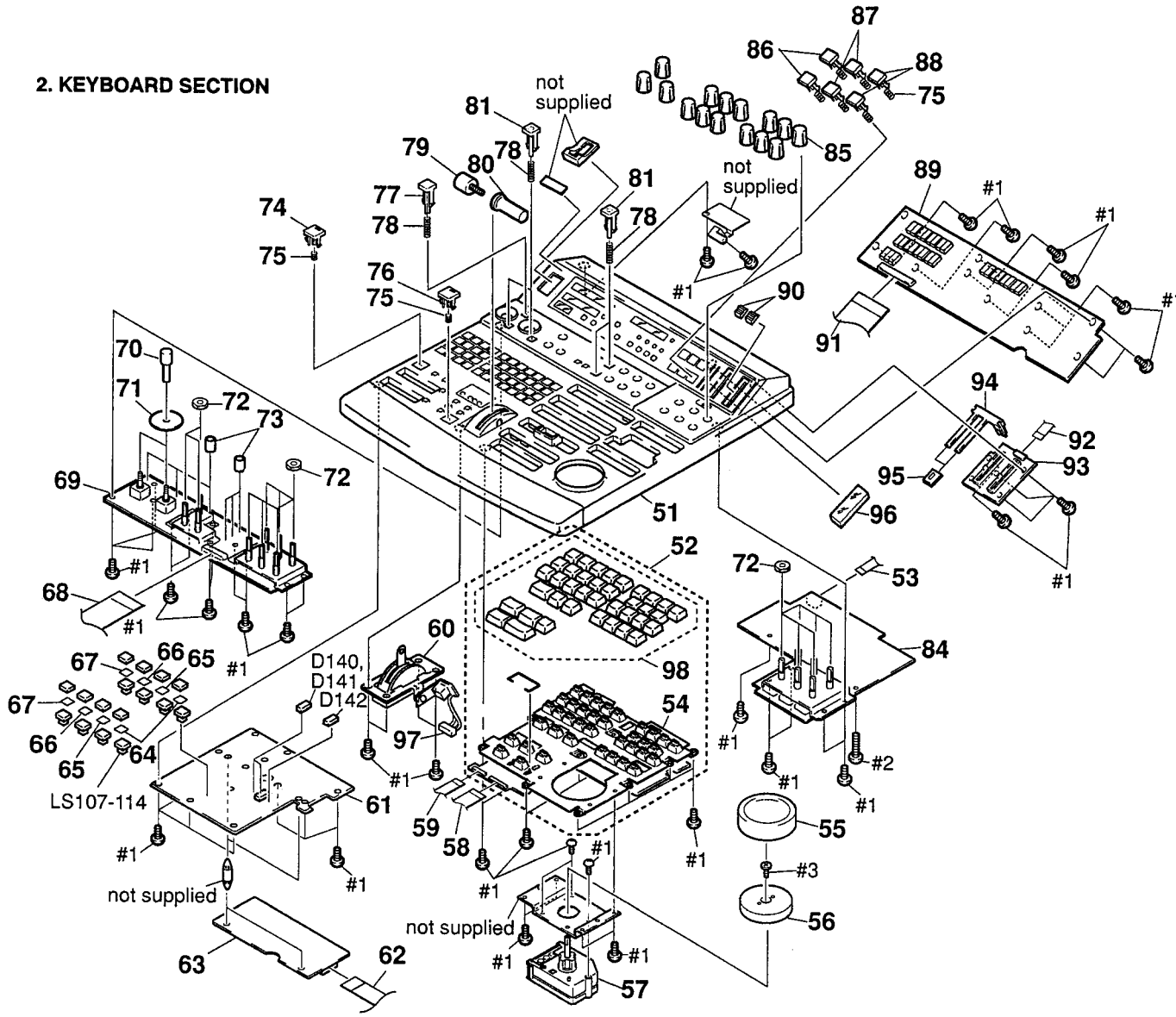
## 1. MAIN SECTION




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| * 1 | X-3943-515-1 | COVER ASSY, BOTTOM | |
| * 2 | 3-957-076-01 | CASE (DV-19) (LOWER), SHIELD | |
| * 3 | A-7066-121-A | DV-19 (P) BOARD, COMPLETE | |
| * 4 | A-7066-127-A | MM-27 (P) BOARD, COMPLETE | |
| * 5 | A-7066-126-A | VI-126 (P) BOARD, COMPLETE | |
| * 6 | 3-957-074-01 | CASE (DV-19) (UPPER), SHIELD | |
| * 7 | A-7066-120-A | FU-123 BOARD, COMPLETE | |
| ⚠8 | 1-413-954-11 | POWER BLOCK | |
| * 9 | 3-697-996-01 | BRACKET, FAN | |
| 10 | 1-541-684-31 | MOTOR, DC | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| * 11 | 3-956-990-01 | PANEL, REAR | |
| * 12 | A-7066-122-A | ED-41 BOARD, COMPLETE | |
| * 13 | A-7066-124-A | RS-62 BOARD, COMPLETE | |
| 14 | 1-751-565-11 | CABLE, FLAT (FRS-14) | |
| * 15 | A-7066-123-A | MJ-65 BOARD, COMPLETE | |
| 16 | 3-684-465-01 | NUT, HEXAGON | |
| 18 | 1-751-560-11 | CABLE, FLAT (FAI-1) | |
| * 19 | A-7053-847-A | RE-25 BOARD, COMPLETE | |
| 20 | 1-751-561-11 | CABLE, FLAT (FAO-1) | |
| * 21 | 3-959-510-01 | LABEL, MODEL NUMBER (NO. 2) | |

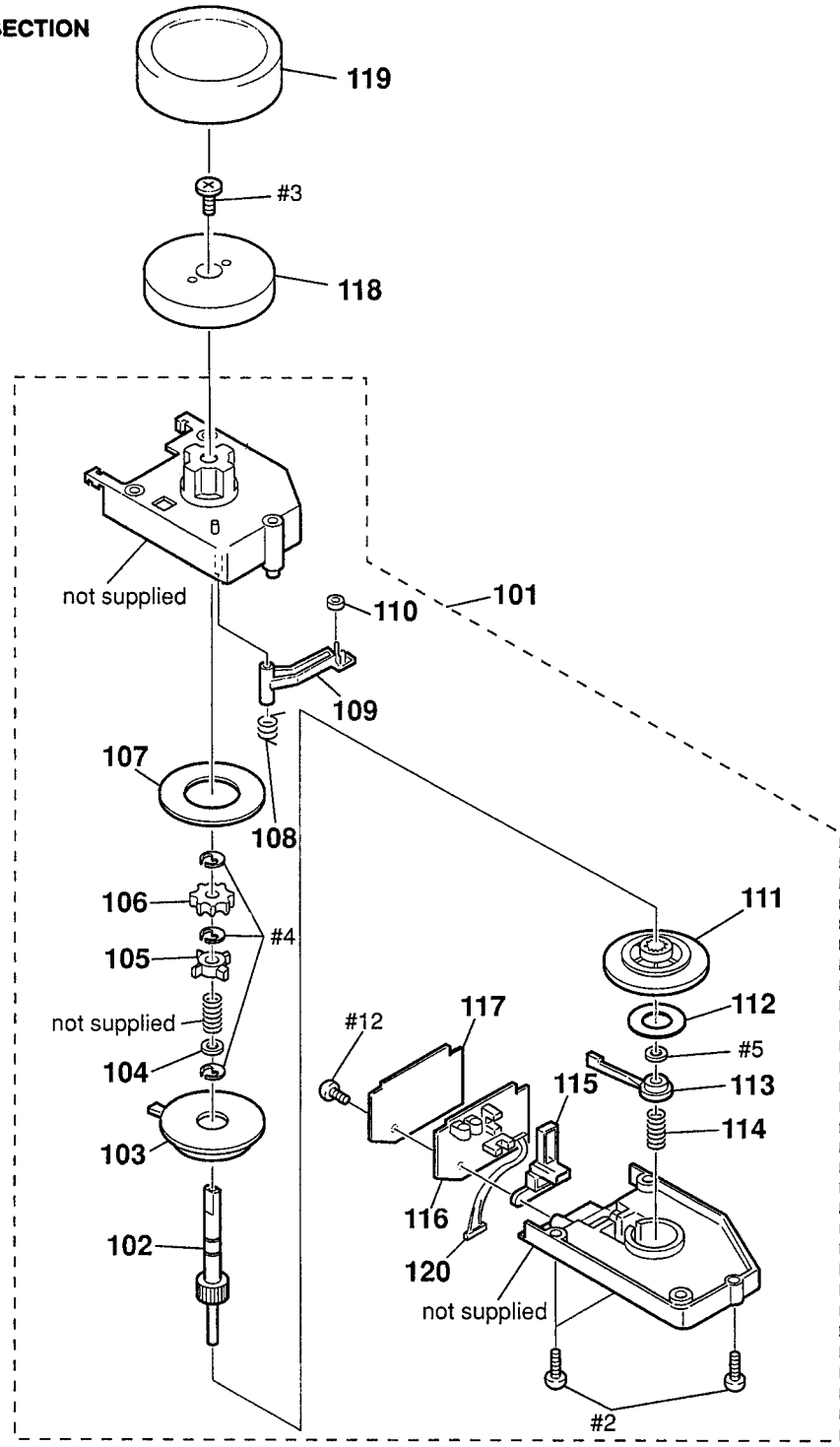
## 2. KEYBOARD SECTION




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 51 | X-3944-189-2 | COVER ASSY, TOP | |
| 52 | 3-957-769-01 | SET, KEY TOP | |
| 53 | 1-751-569-11 | CABLE, FLAT (FAC-1) | |
| 54 | 1-649-632-11 | KY-22 BOARD | |
| 55 | 3-180-633-03 | RUBBER, DIAL KNOB | |
| * 56 | 3-180-632-01 | KNOB, DIAL | |
| * 57 | A-6734-253-A | DIAL BLOCK ASSY, SERCH | |
| 58 | 1-751-566-11 | CABLE, FLAT (FKK-1) | |
| 59 | 1-751-568-11 | CABLE, FLAT (FKK-2) | |
| 60 | A-7092-190-A | FADER ASSY | |
| 61 | A-7063-837-A | KS-15 BOARD, COMPLETE | |
| 62 | 1-751-564-11 | CABLE, FLAT (FUP-1) | |
| * 63 | A-7066-119-A | CP-64 (P) BOARD, COMPLETE | |
| 64 | 3-956-994-31 | SHEET, INDICATION (BKGD) | |
| 65 | 3-956-994-21 | SHEET, INDICATION (AUX) | |
| 66 | 3-956-994-11 | SHEET, INDICATION (P2) | |
| 67 | 3-956-994-01 | SHEET, INDICATION (P1) | |
| 68 | 1-751-567-11 | CABLE, FLAT (FJS-1) | |
| * 69 | A-7066-118-A | JS-25 BOARD, COMPLETE | |
| 70 | 3-956-977-01 | STICK, JOY | |
| * 71 | 3-956-995-01 | COVER, STICK | |
| 72 | 2-118-268-01 | NUT (M9), HEXAGON | |
| * 73 | 3-957-732-01 | HOLDER, JS LED | |
| 74 | 3-957-037-01 | BUTTON (B-45) (AUDIO FOLLOW) | |
| 75 | 3-957-040-01 | SPRING (L), COMPRESSION | |
| 76 | 3-957-038-01 | BUTTON (B-46) (AUTO TRANS/PAUSE) | |
| 77 | 3-957-007-01 | BUTTON (G) | |
| 78 | 3-957-039-01 | SPRING (S), COMPRESSION | |
| 79 | 3-956-978-01 | GRIP (A) | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 80 | 3-956-979-01 | GRIP (B) | |
| 81 | 3-957-004-01 | BUTTON (F) | |
| 84 | A-7063-835-A | AM-32 BOARD, COMPLETE | |
| 85 | 3-956-976-01 | KNOB, ROTARY | |
| 86 | 3-957-042-01 | BUTTON (B-47) (P1) | |
| 87 | 3-957-043-01 | BUTTON (B-48) (P2) | |
| 88 | 3-957-044-01 | BUTTON (B-49) (AUX 1) | |
| 89 | A-7063-834-A | DP-46 BOARD, COMPLETE | |
| 90 | 3-956-975-01 | KNOB, SLIDE | |
| 91 | 1-751-563-11 | CABLE, FLAT (FDP-1) | |
| 92 | 1-751-562-11 | CABLE, FLAT (FAR-1) | |
| 93 | A-7063-833-A | AS-46 BOARD, COMPLETE | |
| * 94 | 3-957-048-01 | COVER, SLIDE KNOB | |
| * 95 | 3-957-061-01 | BASE, SLIDE KNOB | |
| 96 | 1-520-503-11 | METER UNIT, LED LEVEL | |
| 97 | 1-562-148-11 | HOUSING, 3P | |
| 98 | 1-467-473-11 | KEYBOARD BLOCK | |
| D140 | 8-719-913-53 | LED LA-301VL (TRANSRATE 8) | |
| D141 | 8-719-913-53 | LED LA-301VL (TRANSRATE 8) | |
| D142 | 8-719-913-53 | LED LA-301VL (TRANSRATE 8) | |
| LS107 | 1-692-720-11 | SWITCH, PUSH (LED) (A-BUS P1) | |
| LS108 | 1-692-720-11 | SWITCH, PUSH (LED) (A-BUS P2) | |
| LS109 | 1-692-720-11 | SWITCH, PUSH (LED) (A-BUS AUX) | |
| LS110 | 1-692-720-11 | SWITCH, PUSH (LED) (A-BUS BKGD) | |
| LS111 | 1-692-720-11 | SWITCH, PUSH (LED) (B-BUS P1) | |
| LS112 | 1-692-720-11 | SWITCH, PUSH (LED) (B-BUS P2) | |
| LS113 | 1-692-720-11 | SWITCH, PUSH (LED) (B-BUS AUX) | |
| LS114 | 1-692-720-11 | SWITCH, PUSH (LED) (B-BUS BKGD) | |

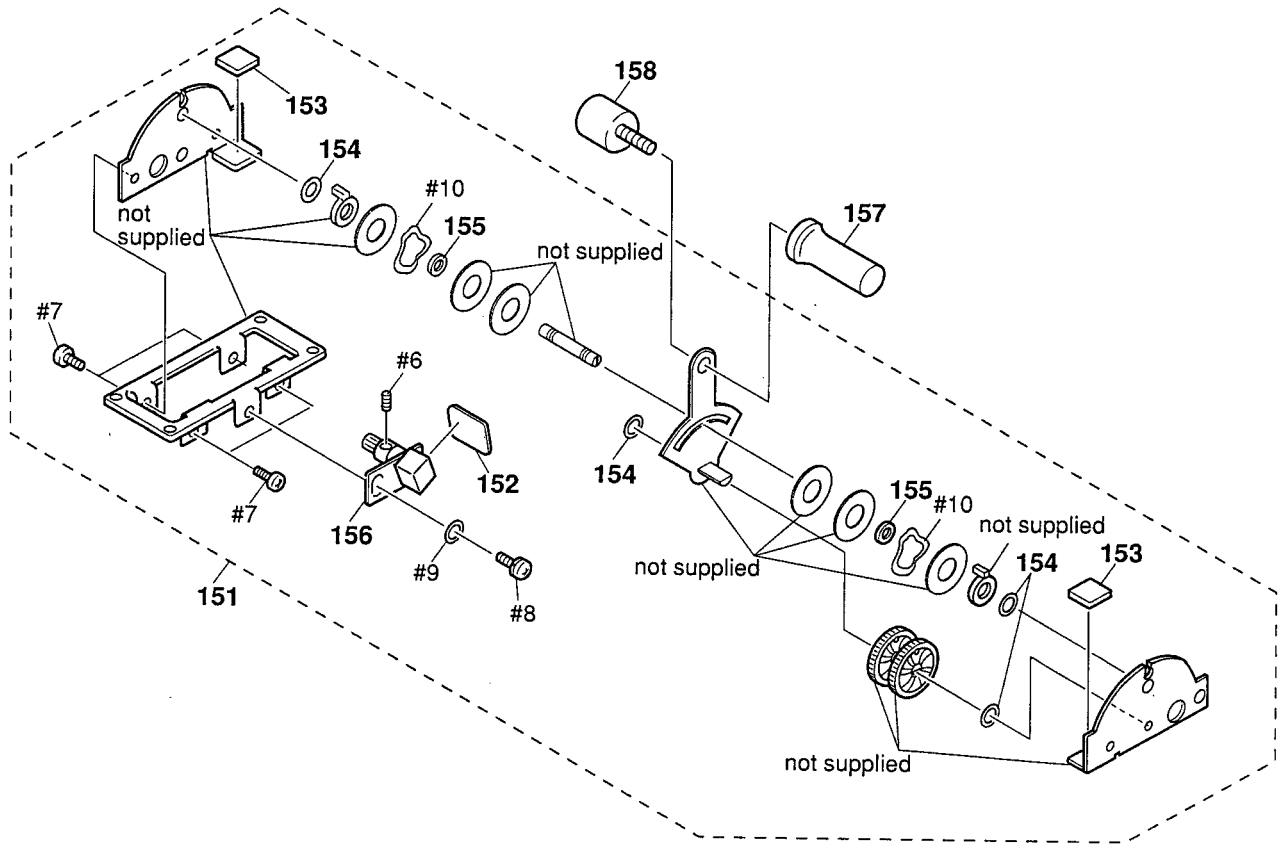
### 3. SEARCH DIAL SECTION




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| * 101 | A-6734-253-A | DIAL BLOCK ASSY, SERCH | |
| * 102 | X-2124-627-1 | SHAFT SUB ASSY, MAIN | |
| * 103 | 2-143-602-03 | CAM, SD | |
| 104 | 3-701-443-21 | WASHER, 5 DIA. | |
| * 105 | 2-143-604-01 | GUIDE, LOCK OUT | |
| * 106 | 2-124-690-01 | GUIDE, LOCK IN | |
| * 107 | 2-124-694-02 | PLATE, CLUTCH | |
| 108 | 2-143-613-01 | SPRING, TORSION | |
| * 109 | 2-143-603-01 | ARM, RETURN | |
| 110 | 2-124-691-01 | ROLLER | |

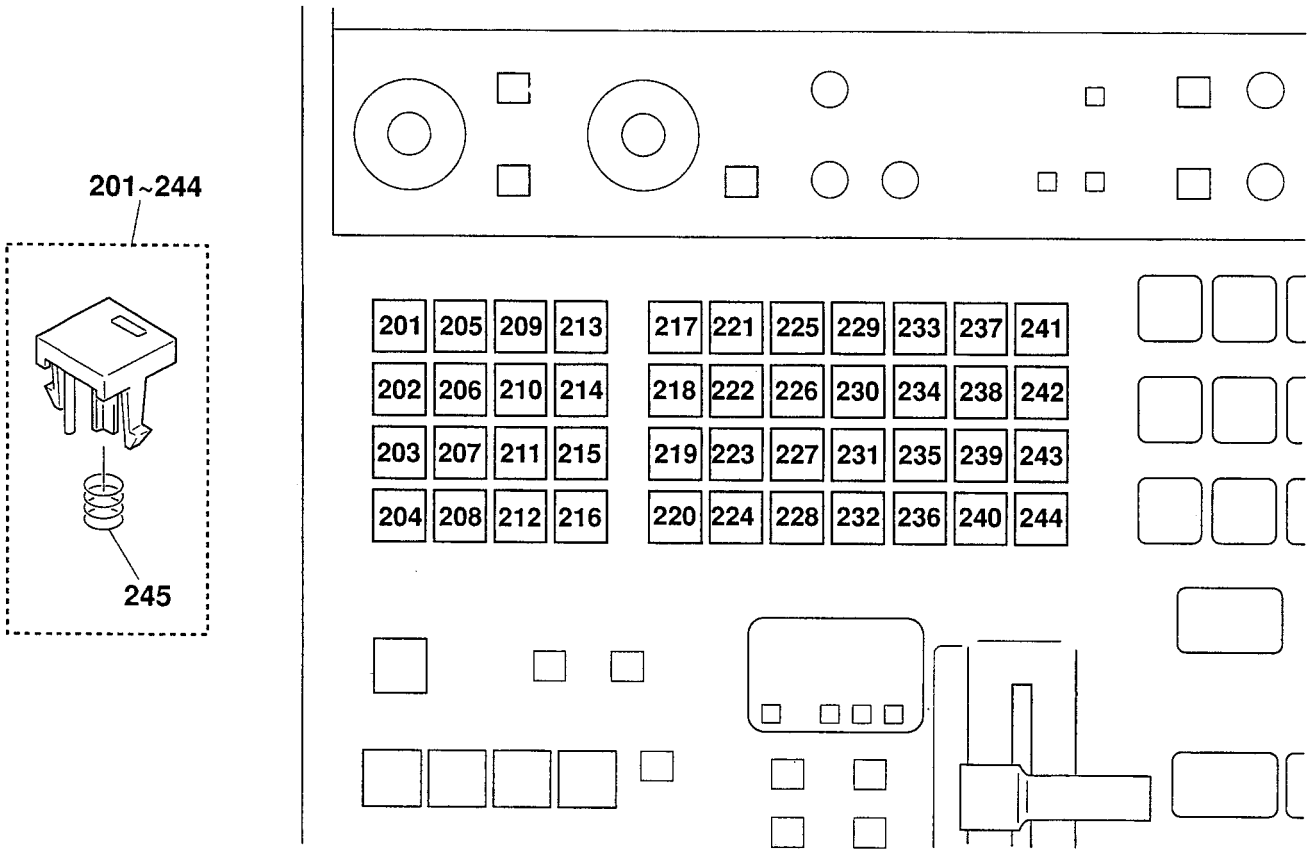
| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 111 | 2-143-601-01 | RING, FG | |
| * 112 | 2-124-695-01 | PLATE, CUSHION | |
| 113 | 2-124-693-02 | PLATE | |
| * 114 | 2-124-692-01 | SPRING, COMPRESSION | |
| * 115 | 2-124-699-02 | HOLDER, SENSOR | |
| * 116 | 1-633-548-13 | PTC-39 BOARD | |
| * 117 | 2-124-696-01 | PROTECTOR, PTC | |
| * 118 | 3-180-632-01 | KNOB, DIAL | |
| 119 | 3-180-633-03 | RUBBER, DIAL KNOB | |
| 120 | 1-562-151-11 | HOUSING, 6P | |

## 4. FADER SECTION




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 151 | A-7092-190-A | FADER ASSY | |
| * 152 | 1-617-831-11 | VR-26 BOARD | |
| 153 | 9-911-838-XX | CUSHION, STAY | |
| 154 | 3-701-441-21 | WASHER | |
| * 155 | 2-112-899-01 | SPACER, RUBBER | |
| 156 | 1-237-127-11 | RES, VAR, CARBON 5K | |
| 157 | 3-956-979-01 | GRIP (B) | |
| 158 | 3-956-978-01 | GRIP (A) | |

## 5. BUTTON SECTION




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 201 | 3-957-023-01 | BUTTON (B-1) (7) | |
| 202 | 3-957-024-01 | BUTTON (B-2) (4) | |
| 203 | 3-957-025-01 | BUTTON (B-3) (1) | |
| 204 | 3-957-026-01 | BUTTON (B-4) (0) | |
| 205 | 3-957-027-01 | BUTTON (B-5) (8) | |
| 206 | 3-957-028-01 | BUTTON (B-6) (5) | |
| 207 | 3-957-029-01 | BUTTON (B-7) (2) | |
| 208 | 3-957-030-01 | BUTTON (B-8) (FS) | |
| 209 | 3-957-031-01 | BUTTON (B-9) (9) | |
| 210 | 3-957-032-01 | BUTTON (B-10) (6) | |
| 211 | 3-957-033-01 | BUTTON (B-11) (3) | |
| 212 | 3-957-034-01 | BUTTON (B-12) (BS) | |
| 213 | 3-957-035-01 | BUTTON (B-13) (+) | |
| 214 | 3-957-036-01 | BUTTON (B-14) (-) | |
| 215 | 3-957-049-01 | BUTTON (B-15) (CLR) | |
| 216 | 3-957-050-01 | BUTTON (B-16) (BNT) | |
| 217 | 3-957-051-01 | BUTTON (B-17) ( ) | |
| 218 | 3-957-052-01 | BUTTON (B-18) ( ) | |
| 219 | 3-957-053-01 | BUTTON (B-19) (SPLIT SLIDE) | |
| 220 | 3-957-054-01 | BUTTON (B-20) (SLIDE IN) | |
| 221 | 3-957-055-01 | BUTTON (B-21) ( ) | |
| 222 | 3-957-056-01 | BUTTON (B-22) ( ) | |
| 223 | 3-957-057-01 | BUTTON (B-23) ( ) | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 224 | 3-957-058-01 | BUTTON (B-24) (SLIDE OUT) | |
| 225 | 3-957-059-01 | BUTTON (B-25) ( ) | |
| 226 | 3-957-060-01 | BUTTON (B-26) ( ) | |
| 227 | 3-957-063-01 | BUTTON (B-27) ( ) | |
| 228 | 3-957-064-01 | BUTTON (B-28) (SCROLL) | |
| 229 | 3-957-065-01 | BUTTON (B-29) ( ) | |
| 230 | 3-957-066-01 | BUTTON (B-30) ( ) | |
| 231 | 3-957-067-01 | BUTTON (B-31) ( ) | |
| 232 | 3-957-068-01 | BUTTON (B-32) (USER 1) | |
| 233 | 3-957-069-01 | BUTTON (B-33) ( ) | |
| 234 | 3-957-070-01 | BUTTON (B-34) ( ) | |
| 235 | 3-957-071-01 | BUTTON (B-35) ( ) | |
| 236 | 3-957-072-01 | BUTTON (B-36) (USER 2) | |
| 237 | 3-957-073-01 | BUTTON (B-37) (NORMAL MIX) | |
| 238 | 3-957-082-01 | BUTTON (B-38) (MOSAIK MIX) | |
| 239 | 3-957-013-01 | BUTTON (B-39) (POSTRZ MIX) | |
| 240 | 3-957-014-01 | BUTTON (B-40) (B & W MIX) | |
| 241 | 3-957-015-01 | BUTTON (B-41) (LUMINA CLIP TRANS) | |
| 242 | 3-957-016-01 | BUTTON (B-42) (LUMINA KEY) | |
| 243 | 3-957-017-01 | BUTTON (B-43) (CHROMA KEY) | |
| 244 | 3-957-018-01 | BUTTON (B-44) (P in P) | |
| 245 | 3-957-040-01 | SPRING (L), COMPRESSION | |

# SECTION 7
# ELECTRICAL PARTS LIST

**AM-32**

**NOTE:**

When indicating parts by reference number, please include the board name.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: μF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: μH
- SEMICONDUCTORS
  In each case, u: μ, for example:
  uA...: μA..., uPA..., μPA...,
  uPB..., μPB..., uPC..., μPC...,
  uPD..., μPD...

| Ref. No. | Part No. | Description | | Remarks |
|---|---|---|---|---|
| * | A-7063-835-A | AM-32 BOARD, COMPLETE | | |
| | | ********** | | |
| | | (Ref. No. 1,000 Seriese) | | |
| | 2-118-268-01 | NUT (M9), HEXAGON | | |
| | | < CAPACITOR > | | |
| C001 | 1-162-971-11 | CERAMIC CHIP 0.001uF | | 50V |
| C002 | 1-162-971-11 | CERAMIC CHIP 0.001uF | | 50V |
| C003 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C004 | 1-162-971-11 | CERAMIC CHIP 0.001uF | | 50V |
| C005 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C006 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C011 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C013 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C014 | 1-164-361-11 | CERAMIC CHIP 0.047uF | | 16V |
| C015 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C016 | 1-164-361-11 | CERAMIC CHIP 0.047uF | | 16V |
| C017 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C018 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C021 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C023 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C025 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C031 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C032 | 1-124-120-11 | ELECT 220uF | 20% | 25V |
| C051 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C061 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C063 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C064 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C065 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C066 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C071 | 1-126-602-11 | ELECT CHIP 3.3uF | 20% | 50V |
| C072 | 1-126-601-11 | ELECT CHIP 2.2uF | 20% | 50V |
| C074 | 1-162-971-11 | CERAMIC CHIP 0.001uF | | 50V |
| C075 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C076 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C077 | 1-162-971-11 | CERAMIC CHIP 0.001uF | | 50V |

| Ref. No. | Part No. | Description | | Remarks |
|---|---|---|---|---|
| C078 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C090 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C091 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C507 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C508 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C523 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C524 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C528 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C529 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C533 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C534 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C535 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C541 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C542 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C543 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C547 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C551 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C552 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C553 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C554 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C555 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C557 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C558 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C559 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C560 | 1-126-602-11 | ELECT CHIP 3.3uF | 20% | 50V |
| C562 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C571 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C572 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C573 | 1-126-400-11 | ELECT 22uF | 20% | 35V |
| C574 | 1-164-361-11 | CERAMIC CHIP 0.047uF | | 16V |
| C581 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C582 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C605 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C606 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |
| C621 | 1-126-204-11 | ELECT CHIP 47uF | 20% | 16V |

# AM-32

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C622 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C626 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C627 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C635 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C641 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C642 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C643 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C647 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C653 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C654 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C656 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C657 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C658 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C660 | 1-126-602-11 | ELECT CHIP | 3.3uF | 20% | 50V |
| C662 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C673 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C674 | 1-164-361-11 | CERAMIC CHIP | 0.047uF | | 16V |

< CONNECTOR >

| | | | |
|---|---|---|---|
| CN001 | 1-568-207-11 | CONNECTOR, FPC (ZIF) 23P | |
| CN002 | 1-566-543-31 | CONNECTOR, FPC (NON ZIF) 11P | |
| CN003 | 1-566-542-31 | CONNECTOR, FPC (NON ZIF) 10P | |
| CN004 | 1-566-532-11 | CONNECTOR, FPC (ZIF) 16P | |
| CN005 | 1-506-487-11 | PIN, CONNECTOR 8P | |
| CN006 | 1-506-483-21 | PIN, CONNECTOR 4P | |
| * CN007 | 1-568-783-11 | PIN, CONNECTOR 6P | |

< DIODE >

| | | | |
|---|---|---|---|
| D031 | 8-719-200-27 | DIODE | E10DS2 |
| D032 | 8-719-200-27 | DIODE | E10DS2 |
| D501 | 8-719-800-76 | DIODE | 1SS226 |
| D502 | 8-719-800-76 | DIODE | 1SS226 |
| D503 | 8-719-800-76 | DIODE | 1SS226 |
| D504 | 8-719-800-76 | DIODE | 1SS226 |
| D505 | 8-719-800-76 | DIODE | 1SS226 |
| D601 | 8-719-800-76 | DIODE | 1SS226 |
| D602 | 8-719-800-76 | DIODE | 1SS226 |
| D603 | 8-719-800-76 | DIODE | 1SS226 |

< IC >

| | | | |
|---|---|---|---|
| IC001 | 8-759-100-96 | IC | uPC4558G2 (INV) |
| IC002 | 8-759-708-08 | IC | NJM78L08A (+8V REG) |
| IC003 | 8-759-700-67 | IC | NJM79L08A (-8V REG) |
| IC004 | 8-759-100-96 | IC | uPC4558G2 (BUFFER) |
| IC005 | 8-759-100-96 | IC | uPC4558G2 (AMP) |
| IC051 | 8-759-981-86 | IC | RC4556MA (AMP) |
| IC061 | 8-759-981-86 | IC | RC4556MA (AMP) |
| IC071 | 8-759-603-27 | IC | M5201FP (AUX/MIC SELECT) |
| IC072 | 8-759-603-27 | IC | M5201FP (AUX/MIC SELECT) |
| IC505 | 8-759-100-96 | IC | uPC4558G2 (BUFFER) |
| IC506 | 8-759-100-96 | IC | uPC4558G2 (BUFFER) |
| IC507 | 8-759-100-96 | IC | uPC4558G2 (AMP) |
| IC509 | 8-759-100-96 | IC | uPC4558G2 (AMP) |
| IC510 | 8-759-932-64 | IC | BU4052BCF (INPUT SELECT) |
| IC511 | 8-759-932-64 | IC | BU4052BCF (INPUT SELECT) |
| IC512 | 8-759-635-26 | IC | M5283P (EVR) |
| IC513 | 8-759-635-26 | IC | M5283P (EVR) |
| IC515 | 8-759-100-96 | IC | uPC4558G2 (MIC AMP) |
| IC516 | 8-759-603-27 | IC | M5201FP (REC/PGM SELECT) |
| IC518 | 8-759-932-64 | IC | BU4052BCF (MONITOR OUTPUT SELECT) |
| IC519 | 8-759-100-96 | IC | uPC4558G2 (BUFFER) |
| IC520 | 8-759-100-96 | IC | uPC4558G2 (INV AMP) |
| IC603 | 8-759-100-96 | IC | uPC4558G2 (BUFFER) |
| IC605 | 8-759-100-96 | IC | uPC4558G2 (BUFFER) |
| IC606 | 8-759-100-96 | IC | uPC4558G2 (BUFFER) |
| IC616 | 8-759-603-27 | IC | M5201FP (REC/PGM SELECT) |
| IC620 | 8-759-100-96 | IC | uPC4558G2 (INV AMP) |

< COIL >

| | | |
|---|---|---|
| L001 | 1-410-671-31 | INDUCTOR 47uH |
| L002 | 1-410-671-31 | INDUCTOR 47uH |
| L003 | 1-410-671-31 | INDUCTOR 47uH |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q001 | 8-729-900-53 | TRANSISTOR | DTC114EK |
| Q002 | 8-729-900-53 | TRANSISTOR | DTC114EK |
| Q003 | 8-729-900-53 | TRANSISTOR | DTC114EK |
| Q004 | 8-729-900-53 | TRANSISTOR | DTC114EK |
| Q005 | 8-729-900-53 | TRANSISTOR | DTC114EK |
| Q006 | 8-729-900-53 | TRANSISTOR | DTC114EK |
| Q007 | 8-729-900-53 | TRANSISTOR | DTC114EK |
| Q031 | 8-729-101-07 | TRANSISTOR | 2SB798-DL |
| Q051 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A |
| Q052 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A |
| Q061 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A |
| Q062 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A |
| Q071 | 8-729-901-04 | TRANSISTOR | DTA114EK |
| Q072 | 8-729-901-06 | TRANSISTOR | DTA144EK |

< RESISTOR >

| | | | | | |
|---|---|---|---|---|---|
| R001 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R002 | 1-216-834-11 | METAL CHIP | 12K | 5% | 1/16W |
| R003 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R004 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R005 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R011 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R012 | 1-216-834-11 | METAL CHIP | 12K | 5% | 1/16W |
| R013 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R021 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R022 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R023 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R024 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R025 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R026 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R027 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R031 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R032 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R033 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R052 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R053 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R054 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R055 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R056 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R057 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R058 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R061 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W |
| R062 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R063 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R064 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R065 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R066 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R067 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R068 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R070 | 1-216-828-11 | METAL CHIP | 3.9K | 5% | 1/16W |
| R071 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R072 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R073 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R074 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R075 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R076 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R077 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W |
| R078 | 1-216-836-11 | METAL CHIP | 18K | 5% | 1/16W |
| R079 | 1-216-824-11 | METAL CHIP | 1.8K | 5% | 1/16W |
| R080 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R081 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R082 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R083 | 1-216-828-11 | METAL CHIP | 3.9K | 5% | 1/16W |
| R084 | 1-216-836-11 | METAL CHIP | 18K | 5% | 1/16W |
| R085 | 1-216-824-11 | METAL CHIP | 1.8K | 5% | 1/16W |
| R086 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R087 | 1-216-071-00 | METAL CHIP | 8.2K | 5% | 1/10W |
| R090 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R093 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R094 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R095 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R096 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R502 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R503 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |
| R506 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R507 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R512 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R513 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |
| R516 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R517 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |
| R522 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R523 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |
| R525 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R526 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R527 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |
| R528 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R529 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R531 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/16W |
| R532 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/16W |
| R533 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/16W |
| R534 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/16W |
| R535 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R536 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R550 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R551 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R552 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R553 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R554 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R555 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R556 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R557 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R558 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R559 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R561 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R562 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R564 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R566 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R567 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R569 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R570 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R571 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R572 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R573 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R574 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R575 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R576 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R577 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R581 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R583 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R584 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R585 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R586 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R593 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R594 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R595 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R602 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R603 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |
| R606 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R607 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |
| R612 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R613 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |
| R616 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R617 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |
| R622 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R623 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |
| R625 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R626 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R627 | 1-218-272-11 | METAL GLAZE | 5.1K | 5% | 1/16W |
| R628 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R629 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R631 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/16W |
| R632 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/16W |
| R633 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/16W |
| R634 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/16W |
| R635 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R636 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R650 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R651 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R652 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R653 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R654 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R655 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R656 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R657 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R658 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R659 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R661 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R662 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R664 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R666 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R667 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R669 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R670 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R671 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R672 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R673 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R674 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R675 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R676 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R677 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R681 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R683 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R684 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R685 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R686 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R693 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R694 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R695 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| | | < VARIABLE RESISTOR > | |
| RV001 | 1-223-530-11 | RES, VAR, CARBON 20K/20K(MAIN P1) | |
| RV002 | 1-223-530-11 | RES, VAR, CARBON 20K/20K(SUB P1) | |
| RV003 | 1-223-530-11 | RES, VAR, CARBON 20K/20K(MAIN P2) | |
| RV004 | 1-223-530-11 | RES, VAR, CARBON 20K/20K(SUB P2) | |
| RV005 | 1-223-530-11 | RES, VAR, CARBON 20K/20K(AUX 1) | |
| RV006 | 1-223-530-11 | RES, VAR, CARBON 20K/20K(MONI OUT) | |
| | | < SWITCH > | |
| S001 | 1-570-865-11 | SWITCH, SLIDE(AUDIO INPUT LEVEL) | |
| ********** | | | |
| | A-7063-833-A | AS-46 BOARD, COMPLETE | |
| | | ********** | |
| | | | (Ref. No. 1,000 Seriese) |
| | 1-751-562-11 | CABLE, FLAT (FAR-1) | |
| * | 3-957-048-01 | COVER, SLIDE KNOB | |
| * | 3-957-061-01 | BASE, SLIDE KNOB | |
| | | < CONNECTOR > | |
| CN901 | 1-566-527-11 | CONNECTOR, FPC (ZIF) 11P | |
| | | < VARIABLE RESISTOR > | |
| RV901 | 1-241-313-11 | RES, VAR, SLIDE 10K/10K (AUX 2/MIC) | |
| RV902 | 1-241-313-11 | RES, VAR, SLIDE 10K/10K (MASTER) | |
| ********** | | | |
| * | A-7066-119-A | CP-64 (P) BOARD, COMPLETE | |
| | | ********** | |
| | | | (Ref. No. 2,000 Seriese) |
| * | 1-526-662-21 | SOCKET, IC (DP) 40P | |
| | | < CAPACITOR > | |
| C500 | 1-126-193-11 | ELECT 1uF 20% 50V | |
| C501 | 1-124-778-00 | ELECT CHIP 22uF 20% 6.3V | |
| C502 | 1-162-917-11 | CERAMIC CHIP 15PF 5% 50V | |
| C503 | 1-162-917-11 | CERAMIC CHIP 15PF 5% 50V | |
| C504 | 1-162-926-11 | CERAMIC CHIP 82PF 5% 50V | |
| C505 | 1-164-360-11 | CERAMIC CHIP 0.1uF 16V | |
| C506 | 1-164-360-11 | CERAMIC CHIP 0.1uF 16V | |
| C507 | 1-164-360-11 | CERAMIC CHIP 0.1uF 16V | |
| C508 | 1-162-917-11 | CERAMIC CHIP 15PF 5% 50V | |
| C509 | 1-164-360-11 | CERAMIC CHIP 0.1uF 16V | |
| C510 | 1-162-917-11 | CERAMIC CHIP 15PF 5% 50V | |
| C511 | 1-164-360-11 | CERAMIC CHIP 0.1uF 16V | |
| C512 | 1-164-360-11 | CERAMIC CHIP 0.1uF 16V | |
| C515 | 1-164-360-11 | CERAMIC CHIP 0.1uF 16V | |
| C516 | 1-164-360-11 | CERAMIC CHIP 0.1uF 16V | |

| Ref. No. | Part No. | Description | | Remarks |
|---|---|---|---|---|
| C517 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C518 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C519 | 1-126-205-11 | ELECT CHIP 47uF | 20% | 6.3V |
| C520 | 1-126-205-11 | ELECT CHIP 47uF | 20% | 6.3V |
| C521 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C522 | 1-125-445-11 | CAP, DOUBLE LAYERS 0.22F | | |
| C523 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C524 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C525 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C526 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C527 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C528 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C529 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C530 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C531 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C532 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C533 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C534 | 1-162-917-11 | CERAMIC CHIP 15PF | 5% | 50V |
| C535 | 1-162-917-11 | CERAMIC CHIP 15PF | 5% | 50V |
| C536 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C537 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C538 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C600 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C601 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| C602 | 1-164-360-11 | CERAMIC CHIP 0.1uF | | 16V |
| | | < CONNECTOR > | | |
| CN500 | 1-569-030-11 | CONNECTOR, FPC (ZIF) 21P | | |
| CN501 | 1-506-485-11 | PIN, CONNECTOR 6P | | |
| * CN502 | 1-569-035-11 | CONNECTOR, FPC (ZIF) 30P | | |
| CN503 | 1-580-722-11 | CONNECTOR, BOARD TO BOARD 28P | | |
| CN504 | 1-580-722-11 | CONNECTOR, BOARD TO BOARD 28P | | |
| * CN600 | 1-569-035-11 | CONNECTOR, FPC (ZIF) 30P | | |
| | | < DIODE > | | |
| D500 | 8-719-800-76 | DIODE 1SS226 | | |
| D501 | 8-719-105-52 | DIODE RD3.6M-B2 | | |
| D502 | 8-719-980-78 | DIODE ERA83-006 | | |
| D503 | 8-719-104-34 | DIODE 1S2836 | | |
| | | < FERRITE BEAD > | | |
| FB500 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB501 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB502 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB503 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB504 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB505 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB506 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB507 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB508 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB509 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB510 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB511 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB512 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB513 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB514 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB515 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB516 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB517 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB518 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB519 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB520 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB521 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB522 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB523 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB524 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB525 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB526 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB527 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB528 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB529 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB530 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB531 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB532 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB533 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB534 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB535 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB536 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB537 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB538 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB539 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB540 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB541 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB543 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB544 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB545 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB546 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB547 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB548 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB549 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB550 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB551 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB552 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB553 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB554 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB555 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB556 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB557 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB558 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB559 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |
| FB560 | 1-412-390-21 | INDUCTOR CHIP 0uH | | |

# CP-64

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| FB561 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB562 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB563 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB564 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB565 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB566 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB567 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB568 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| | | < IC > | |
| IC500 | 8-759-048-29 | IC M37732S4AFP (MASTER MICOM) | |
| IC501 | 8-752-855-96 | IC CXP80116-895Q (OSD MICOM) | |
| IC502 | 8-759-937-56 | IC S-8054ALB-LM-S (RESET) | |
| IC503 | 8-759-925-80 | IC SN74HC14ANS (SCHMITT INV) | |
| IC504 | 8-759-185-95 | IC TC74VHC245F(EL)(BUS TRASCEIVER) | |
| IC505 | 8-759-011-65 | IC MC74HC4053F (DATA SELECT) | |
| IC506 | 8-759-159-70 | IC BR9021BF (EEPROM) | |
| IC507 | 8-759-185-95 | IC TC74VHC245F(EL)(BAS TRANSCEIVER) | |
| IC508 | 8-759-186-32 | IC TC74VHC21F (AND GATE) | |
| IC509 | 8-759-176-24 | IC M66800FP (MEMORY EXPANDER) | |
| IC510 | 8-759-277-73 | IC M5M27C102P-15-GDX991(ROM) | |
| IC511 | 8-759-185-79 | IC TC74VHC138F(EL)(CHIP SELECT) | |
| IC512 | 8-752-356-60 | IC CXK5864CM-10LL (RAM) | |
| IC513 | 8-752-356-60 | IC CXK5864CM-10LL (RAM) | |
| IC514 | 8-759-081-44 | IC TC74VHC04F (INV) | |
| IC515 | 8-759-244-12 | IC TC74AC175F (DELAY) | |
| IC516 | 8-759-185-70 | IC TC74VHC32F(EL) (OR/GATE) | |
| IC517 | 8-759-185-79 | IC TC74VHC138F(EL) (ADDRESS DECODER) | |
| IC518 | 8-752-327-37 | IC CXD1500Q (CPG/PTC/PIU/ICU) | |
| IC519 | 8-759-185-95 | IC TC74VHC245F(EL) (BUS TANSCEIVER) | |
| IC520 | 8-759-185-95 | IC TC74VHC245F(EL) (BUS TANSCEIVER) | |
| IC521 | 8-759-081-48 | IC TC74VHC08F (GATE) | |
| IC522 | 8-759-081-48 | IC TC74VHC08F (GATE) | |
| IC523 | 8-759-081-48 | IC TC74VHC08F (GATE) | |
| IC524 | 8-759-081-48 | IC TC74VHC08F (GATE) | |
| IC600 | 8-759-190-79 | IC uPD72001GC-11-3B6 (UART) | |
| IC601 | 8-759-185-70 | IC TC74VHC32F(EL)(UART SELECT) | |
| IC602 | 8-759-190-79 | IC uPD72001GC-11-3B6 (UART) | |
| | | < COIL > | |
| L501 | 1-412-029-11 | INDUCTOR CHIP 10uH | |
| | | < TRANSISTOR > | |
| Q500 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q501 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q502 | 8-729-901-01 | TRANSISTOR DTC144EK | |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| | | < RESISTOR > | | | |
| R500 | 1-216-854-11 | METAL CHIP | 560K | 5% | 1/16W |
| R501 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R502 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W |
| R503 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R504 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R505 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R506 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R507 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R513 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R515 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R517 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R519 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R543 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R547 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R548 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R549 | 1-216-801-11 | METAL CHIP | 22 | 5% | 1/16W |
| R551 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R552 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R553 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R554 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R555 | 1-216-816-11 | METAL CHIP | 390 | 5% | 1/16W |
| R556 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R557 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R558 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R559 | 1-216-806-11 | METAL GLAZE | 56 | 5% | 1/16W |
| R562 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R563 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R569 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R570 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R584 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R585 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R586 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R587 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R588 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R589 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R590 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R591 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R592 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R593 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R594 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R595 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R596 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R597 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R598 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R600 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R601 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R602 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R603 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R604 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R625 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R626 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R627 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R628 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R629 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R630 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R631 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R632 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R633 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R638 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R640 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R641 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R643 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R646 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R647 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R648 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R649 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R650 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R651 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R652 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R653 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R655 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R656 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R657 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |

< VIBRATOR >

| | | | |
|---|---|---|---|
| X500 | 1-579-070-41 | VIBRATOR, CRYSTAL 16MHz | |
| X501 | 1-579-070-41 | VIBRATOR, CRYSTAL 16MHz | |
| X502 | 1-577-720-11 | VIBRATOR, CRYSTAL 14.7456MHz | |

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* A-7063-834-A DP-46 BOARD, COMPLETE

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(Ref. No. 2,000 Seriese)

1-751-563-11 CABLE, FLAT (FDP-1)

< CAPACITOR >

| | | | | |
|---|---|---|---|---|
| C901 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C902 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C904 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C905 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C906 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C907 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C908 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C909 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C910 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C911 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C912 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C913 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C914 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C915 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C916 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C917 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C918 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C919 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C920 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C921 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C922 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C923 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C924 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C925 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C926 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C927 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C928 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C929 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C930 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C931 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C932 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C933 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C934 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C935 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C936 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C937 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C940 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C951 | 1-126-206-11 | ELECT CHIP | 100uF | 20% 6.3V |
| C952 | 1-126-206-11 | ELECT CHIP | 100uF | 20% 6.3V |
| C953 | 1-124-779-00 | ELECT CHIP | 10uF | 20% 16V |
| C954 | 1-124-779-00 | ELECT CHIP | 10uF | 20% 16V |
| C955 | 1-124-779-00 | ELECT CHIP | 10uF | 20% 16V |
| C956 | 1-124-779-00 | ELECT CHIP | 10uF | 20% 16V |
| C957 | 1-124-779-00 | ELECT CHIP | 10uF | 20% 16V |
| C959 | 1-124-779-00 | ELECT CHIP | 10uF | 20% 16V |
| C960 | 1-124-779-00 | ELECT CHIP | 10uF | 20% 16V |
| C961 | 1-124-779-00 | ELECT CHIP | 10uF | 20% 16V |
| C970 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C971 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |
| C972 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | 25V |

< CONNECTOR >

| | | |
|---|---|---|
| * CN901 | 1-569-035-11 | CONNECTOR, FPC (ZIF) 30P |
| CN902 | 1-506-485-11 | PIN, CONNECTOR 6P |

< DIODE >

| | | |
|---|---|---|
| D901 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) |
| D902 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) |
| D903 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) |
| D904 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) |
| D905 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) |
| D906 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) |
| D907 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) |
| D908 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) |
| D909 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) |
| D910 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| D911 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D912 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D913 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D914 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D915 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D916 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D917 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D918 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D919 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D920 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D921 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D922 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D923 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D924 | 8-719-913-53 | LED LA-301VL (PLAYER 1 HOURS 8) | |
| D925 | 8-719-913-53 | LED LA-301VL (EDIT PGM 8) | |
| D926 | 8-719-913-53 | LED LA-301VL (EDIT PGM 8) | |
| D927 | 8-719-913-53 | LED LA-301VL (EDIT PGM 8) | |
| D931 | 8-719-104-34 | DIODE 1S2836 | |
| D932 | 8-719-104-34 | DIODE 1S2836 | |
| D933 | 8-719-104-34 | DIODE 1S2836 | |
| D934 | 8-719-104-34 | DIODE 1S2836 | |
| D935 | 8-719-104-34 | DIODE 1S2836 | |
| D936 | 8-719-104-34 | DIODE 1S2836 | |
| D937 | 8-719-104-34 | DIODE 1S2836 | |
| D938 | 8-719-104-34 | DIODE 1S2836 | |
| D941 | 8-719-801-78 | DIODE 1SS184 | |
| D942 | 8-719-801-78 | DIODE 1SS184 | |
| D943 | 8-719-801-78 | DIODE 1SS184 | |
| D944 | 8-719-801-78 | DIODE 1SS184 | |
| D945 | 8-719-801-78 | DIODE 1SS184 | |
| D946 | 8-719-801-78 | DIODE 1SS184 | |
| D947 | 8-719-801-78 | DIODE 1SS184 | |
| D948 | 8-719-801-78 | DIODE 1SS184 | |
| D949 | 8-719-801-78 | DIODE 1SS184 | |
| D950 | 8-719-801-78 | DIODE 1SS184 | |
| D951 | 8-719-801-78 | DIODE 1SS184 | |
| D952 | 8-719-801-78 | DIODE 1SS184 | |
| D961 | 8-719-029-43 | DIODE CL-140SD-CD-T (RECORDER SERVO) | |
| D962 | 8-719-029-43 | DIODE CL-140SD-CD-T (SCREEN OFF) | |
| D963 | 8-719-029-43 | DIODE CL-140SD-CD-T (RECORDER SERVO) | |
| D964 | 8-719-029-43 | DIODE CL-140SD-CD-T (SCREEN ON) | |
| D965 | 8-719-029-43 | DIODE CL-140SD-CD-T (SCREEN MENU) | |
| D966 | 8-719-029-43 | DIODE CL-140SD-CD-T (SCREEN MENU) | |
| D967 | 8-719-029-43 | DIODE CL-140SD-CD-T (RECORDER IN) | |
| D968 | 8-719-029-43 | DIODE CL-140SD-CD-T (RECORDER OUT) | |
| D969 | 8-719-029-43 | DIODE CL-140SD-CD-T (PLAYER 1 SERVO) | |
| D970 | 8-719-029-43 | DIODE CL-140SD-CD-T (PLAYER 2 SERVO) | |
| D971 | 8-719-029-43 | DIODE CL-140SD-CD-T (PLAYER 1 SERVO) | |
| D972 | 8-719-029-43 | DIODE CL-140SD-CD-T (PLAYER 2 SERVO) | |
| D973 | 8-719-029-43 | DIODE CL-140SD-CD-T (A-BUS P1) | |
| D974 | 8-719-029-43 | DIODE CL-140SD-CD-T (B-BUS P1) | |
| D975 | 8-719-029-43 | DIODE CL-140SD-CD-T (A-BUS P2) | |
| D976 | 8-719-029-43 | DIODE CL-140SD-CD-T (B-BUS P2) | |
| D977 | 8-719-029-43 | DIODE CL-140SD-CD-T (A-BUS AUX 1) | |
| D978 | 8-719-029-43 | DIODE CL-140SD-CD-T (B-BUS AUX 1) | |
| D979 | 8-719-029-43 | DIODE CL-140SD-CD-T (PLAYER 1 IN) | |
| D980 | 8-719-029-43 | DIODE CL-140SD-CD-T (PLAYER 2 IN) | |
| D981 | 8-719-029-43 | DIODE CL-140SD-CD-T (PLAYER 1 OUT) | |
| D982 | 8-719-029-43 | DIODE CL-140SD-CD-T (PLAYER 2 OUT) | |
| | | < FERRITE BEAD > | |
| FB901 | 1-543-813-21 | FILTER, EMI | |
| FB902 | 1-543-813-21 | FILTER, EMI | |
| FB903 | 1-543-813-21 | FILTER, EMI | |
| | | < IC > | |
| IC901 | 8-759-234-67 | IC TMP82C79M-2 (KEY/LED CONTROLLER) | |
| IC902 | 8-759-234-67 | IC TMP82C79M-2 (KEY/LED CONTROLLER) | |
| IC903 | 8-759-926-11 | IC SN74HC138ANS (ADDRESS DECODER) | |
| IC904 | 8-759-926-42 | IC SN74HC238ANS (ADDRESS DECODER) | |
| IC905 | 8-759-926-42 | IC SN74HC238ANS (ADDRESS DECODER) | |
| IC906 | 8-759-926-77 | IC SN74HC541ANS (BUFFER) | |
| IC911 | 8-759-051-53 | IC TD62381F (DRIVER) | |
| IC912 | 8-759-051-53 | IC TD62381F (DRIVER) | |
| IC913 | 8-759-051-53 | IC TD62381F (DRIVER) | |
| IC914 | 8-759-051-53 | IC TD62381F (DRIVER) | |
| IC915 | 8-759-051-53 | IC TD62381F (DRIVER) | |
| IC916 | 8-759-926-42 | IC SN74HC238ANS (ADDRESS DECODER) | |
| IC917 | 8-759-926-42 | IC SN74HC238ANS (ADDRESS DECODER) | |
| | | < COIL > | |
| L901 | 1-410-381-11 | INDUCTOR CHIP 10uH | |
| | | < SWIICT > | |
| LS901 | 1-692-518-11 | SWITCH, TACTIL (LS22BB-2SD/SD-T) (EDIT NO) | |
| LS902 | 1-692-518-11 | SWITCH, TACTIL (LS22BB-2SD/SD-T) (SNAP SHOT) | |
| LS903 | 1-692-518-11 | SWITCH, TACTIL (LS22BB-2SD/SD-T) (STORE) | |
| LS904 | 1-692-518-11 | SWITCH, TACTIL (LS22BB-2SD/SD-T) (RECALL) | |
| LS905 | 1-692-518-11 | SWITCH, TACTIL (LS22BB-2SD/SD-T) (PGM MODE) | |
| LS906 | 1-692-518-11 | SWITCH, TACTIL (LS22BB-2SD/SD-T) (LEARN) | |
| | | < TRANSISTOR > | |
| Q901 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q902 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q903 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q904 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q905 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q906 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q907 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q908 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q909 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q910 | 8-729-904-48 | TRANSISTOR DTB113EK | |

| Ref. No. | Part No. | Description | | | | Remarks |
|---|---|---|---|---|---|---|
| Q911 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q912 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q913 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q914 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q915 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q916 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q917 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q918 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q919 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q920 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q921 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q922 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q923 | 8-729-904-48 | TRANSISTOR | DTB113EK | | | |
| Q930 | 8-729-901-06 | TRANSISTOR | DTA144EK | | | |
| | | < RESISTOR > | | | | |
| R901 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R902 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R903 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R904 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R905 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R906 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R907 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R908 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R909 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R910 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R911 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R912 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R913 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R914 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R915 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R916 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R917 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R918 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R919 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R920 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R921 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R922 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R923 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R924 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R925 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R926 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R927 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R928 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R929 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R930 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R931 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R932 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R933 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R934 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R935 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | | Remarks |
|---|---|---|---|---|---|---|
| R936 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R937 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R938 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R939 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R940 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R941 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R942 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R943 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R944 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R945 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R946 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R947 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R948 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R949 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R950 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R951 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R952 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R953 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R954 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R955 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R956 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R957 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R958 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R959 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R960 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R961 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R962 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R963 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R964 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R965 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R966 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R967 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R968 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R969 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R970 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R971 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R972 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R973 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R974 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R975 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W | |
| R976 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R977 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R978 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R979 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R980 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R981 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R982 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R983 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R984 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |
| R985 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W | |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R986 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W |
| R989 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R990 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R991 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R992 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R993 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R994 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R995 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R997 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W |
| R998 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W |
| R999 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W |
| | | < SWITCH > | | | |
| S901 | 1-571-787-11 | SWITCH, TACTILE (SET) | | | |
| S902 | 1-571-787-11 | SWITCH, TACTILE (DATA) | | | |
| S903 | 1-571-787-11 | SWITCH, TACTILE (MENU) | | | |
| S904 | 1-571-787-11 | SWITCH, TACTILE (SCREEN) | | | |
| S905 | 1-571-787-11 | SWITCH, TACTILE (+) | | | |
| S906 | 1-571-787-11 | SWITCH, TACTILE (-) | | | |
| S907 | 1-571-787-11 | SWITCH, TACTILE (DEL) | | | |
| S908 | 1-571-787-11 | SWITCH, TACTILE (DIS/ENA) | | | |
| S909 | 1-571-787-11 | SWITCH, TACTILE (A-BUS P1) | | | |
| S910 | 1-571-787-11 | SWITCH, TACTILE (A-BUS P2) | | | |
| S911 | 1-571-787-11 | SWITCH, TACTILE (A-BUS AUX1) | | | |
| S912 | 1-571-787-11 | SWITCH, TACTILE (B-BUS P1) | | | |
| S913 | 1-571-787-11 | SWITCH, TACTILE (B-BUS P2) | | | |
| S914 | 1-571-787-11 | SWITCH, TACTILE (B-BUS AUX2) | | | |
| S915 | 1-571-787-11 | SWITCH, TACTILE (PLAYER 2 RESET) | | | |
| S916 | 1-571-787-11 | SWITCH, TACTILE (PLAYER 1 RESET) | | | |
| S917 | 1-571-787-11 | SWITCH, TACTILE (RECORDER RESET) | | | |
| ********** | | | | | |
| * | A-7066-121-A | DV-19 (P) BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | (Ref. No. 7,000 Seriese) | | | |
| | 1-751-564-11 | CABLE, FLAT (FUP-1) | | | |
| | 1-751-569-11 | CABLE, FLAT (FAC-1) | | | |
| * | 3-957-074-01 | CASE (DV-19) (UPPER), SHIELD | | | |
| * | 3-957-076-01 | CASE (DV-19) (LOWER), SHIELD | | | |
| | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 IT-3 | | | |
| | | < CAPACITOR > | | | |
| C001 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C002 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C003 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C004 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C005 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C006 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C007 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C008 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C009 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C010 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C011 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C012 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C013 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C014 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C015 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C016 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C017 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C018 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C019 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C020 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C021 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C022 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C023 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C024 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C025 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C026 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C027 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C028 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C029 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C030 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C031 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C032 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C033 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C034 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C035 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C036 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C037 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C038 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C039 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C040 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C041 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C042 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C043 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C044 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C045 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C046 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C047 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C048 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C049 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C050 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C051 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C052 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C053 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C054 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C055 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C056 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C057 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C058 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C059 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C061 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C065 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C066 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C067 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C069 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C070 | 1-162-964-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C071 | 1-126-602-11 | ELECT CHIP | 3. 3uF | 20% | 50V |
| C072 | 1-162-964-11 | CERAMIC CHIP | 0. 001uF | 10% | 50V |
| C073 | 1-126-602-11 | ELECT CHIP | 3. 3uF | 20% | 50V |
| C101 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C102 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C103 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C104 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C105 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C106 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C107 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C108 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C109 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C110 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C111 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C112 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C113 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C114 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C115 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C116 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C117 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C118 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C119 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C120 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C121 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C122 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C123 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C125 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C126 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C127 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C128 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C129 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C130 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C131 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C132 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C133 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C134 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C135 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C136 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C137 | 1-164-185-11 | CERAMIC CHIP | 13PF | 5% | 50V |
| C138 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C139 | 1-162-922-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C140 | 1-164-382-11 | CERAMIC CHIP | 91PF | 5% | 50V |
| C141 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C142 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C143 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C144 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C145 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C146 | 1-126-603-11 | ELECT CHIP | 4. 7uF | 20% | 35V |
| C147 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C148 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C149 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C150 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C151 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C152 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C153 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C154 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0. 5PF | 50V |
| C155 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0. 5PF | 50V |
| C156 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C157 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C158 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C159 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C160 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C161 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C162 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C163 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C164 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C165 | 1-128-453-21 | ELECT CHIP | 47uF | 20% | 6. 3V |
| C166 | 1-162-924-11 | CERAMIC CHIP | 56PF | 5% | 50V |
| C201 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C202 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C203 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C204 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C205 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C206 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C207 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C208 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C209 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C210 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C211 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C212 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C213 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C214 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C215 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C216 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C217 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C218 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C219 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C220 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C221 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0. 5PF | 50V |
| C222 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C223 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C224 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C225 | 1-162-928-11 | CERAMIC CHIP | 120PF | 5% | 50V |
| C226 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C227 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C228 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C229 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C230 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C231 | 1-164-357-11 | CERAMIC CHIP | 1000PF | 5% | 50V |
| C232 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C233 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C234 | 1-164-346-11 | CERAMIC CHIP | 1uF | | 16V |
| C235 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C236 | 1-164-490-11 | CERAMIC CHIP | 0.068uF | | 16V |
| C237 | 1-164-346-11 | CERAMIC CHIP | 1uF | | 16V |
| C238 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C239 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C240 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C241 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C242 | 1-164-357-11 | CERAMIC CHIP | 1000PF | 5% | 50V |
| C243 | 1-162-953-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C244 | 1-164-676-11 | CERAMIC CHIP | 2200PF | 5% | 16V |
| C245 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C246 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C247 | 1-126-191-11 | ELECT | 0.47uF | 20% | 50V |
| C248 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C249 | 1-164-185-11 | CERAMIC CHIP | 13PF | 5% | 50V |
| C250 | 1-162-922-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C251 | 1-164-382-11 | CERAMIC CHIP | 91PF | 5% | 50V |
| C252 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C253 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C254 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C255 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C256 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C257 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C258 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C259 | 1-164-315-11 | CERAMIC CHIP | 470PF | 5% | 50V |
| C260 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C261 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C262 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C263 | 1-162-922-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C264 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C265 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C266 | 1-162-974-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C267 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C268 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C269 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C270 | 1-164-238-11 | CERAMIC CHIP | 36PF | 5% | 50V |
| C301 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C302 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C303 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C304 | 1-162-964-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| C305 | 1-163-137-00 | CERAMIC CHIP | 680PF | 5% | 50V |
| C306 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C307 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C308 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C309 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C310 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C311 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C312 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C401 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C402 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C403 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C404 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C405 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C406 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C407 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C408 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C409 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C410 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C419 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C420 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C421 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C451 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C452 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C453 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C454 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C455 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C456 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C457 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C458 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C459 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C460 | 1-162-958-11 | CERAMIC CHIP | 270PF | 5% | 50V |
| C461 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C462 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C463 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C464 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C465 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C466 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C467 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C468 | 1-162-926-11 | CERAMIC CHIP | 82PF | 5% | 50V |
| C469 | 1-164-237-11 | CERAMIC CHIP | 16PF | 5% | 50V |
| C470 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C471 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C472 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C501 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C502 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C503 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C504 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C505 | 1-162-910-11 | CERAMIC CHIP | 5PF | 0.25PF | 50V |
| C506 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C507 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C508 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C509 | 1-162-921-11 | CERAMIC CHIP | 33PF | 5% | 50V |
| C510 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C511 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C512 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C513 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C514 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C515 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C516 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C517 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C518 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C519 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C520 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C521 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C522 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C523 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C524 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C525 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C526 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C527 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C528 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C529 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C530 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C531 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C532 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C533 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C534 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C535 | 1-162-918-11 | CERAMIC CHIP | 18PF | 5% | 50V |
| C536 | 1-162-918-11 | CERAMIC CHIP | 18PF | 5% | 50V |
| C537 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C538 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C539 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C540 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C541 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C542 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C543 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C544 | 1-128-415-11 | ELECT CHIP | 68uF | 20% | 10V |
| C545 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C546 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C547 | 1-128-415-11 | ELECT CHIP | 68uF | 20% | 10V |
| C548 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C549 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C550 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C551 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C553 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C554 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C555 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C556 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C557 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C559 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C560 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C561 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C562 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C563 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C564 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C565 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C566 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C567 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C568 | 1-164-315-11 | CERAMIC CHIP | 470PF | 5% | 50V |
| C569 | 1-164-315-11 | CERAMIC CHIP | 470PF | 5% | 50V |
| C570 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C571 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C572 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C573 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C574 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C575 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C576 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C577 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C578 | 1-162-926-11 | CERAMIC CHIP | 82PF | 5% | 50V |
| C579 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C580 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C581 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C582 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C583 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C584 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C585 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C586 | 1-162-921-11 | CERAMIC CHIP | 33PF | 5% | 50V |
| C587 | 1-162-921-11 | CERAMIC CHIP | 33PF | 5% | 50V |
| C588 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C589 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C590 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C591 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C592 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C593 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0. 5PF | 50V |
| C594 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0. 5PF | 50V |
| C595 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C596 | 1-128-415-11 | ELECT CHIP | 68uF | 20% | 10V |
| C597 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C598 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C599 | 1-164-218-11 | CERAMIC CHIP | 180PF | 5% | 50V |
| C601 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C602 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C603 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C604 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C606 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C607 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C608 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C609 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C610 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C611 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C612 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C613 | 1-162-910-11 | CERAMIC CHIP | 5PF | 0. 25PF | 50V |
| C614 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |

**DV-19**

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C615 | 1-162-910-11 | CERAMIC CHIP | 5PF | 0. 25PF | 50V |
| C616 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C617 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C618 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C619 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C620 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C621 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C622 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C623 | 1-162-910-11 | CERAMIC CHIP | 5PF | 0. 25PF | 50V |
| C624 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C625 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C626 | 1-162-910-11 | CERAMIC CHIP | 5PF | 0. 25PF | 50V |
| C627 | 1-164-005-11 | CERAMIC CHIP | 0. 47uF | | 25V |
| C628 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C629 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C630 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C631 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C632 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C633 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C634 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C635 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C636 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C637 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C638 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C639 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C640 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C641 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C642 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C643 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C644 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C645 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C646 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C647 | 1-162-908-11 | CERAMIC CHIP | 3PF | 0. 25PF | 50V |
| C648 | 1-162-908-11 | CERAMIC CHIP | 3PF | 0. 25PF | 50V |
| C649 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C650 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C651 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C652 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C653 | 1-162-908-11 | CERAMIC CHIP | 3PF | 0. 25PF | 50V |
| C654 | 1-162-908-11 | CERAMIC CHIP | 3PF | 0. 25PF | 50V |
| C655 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C656 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C657 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C658 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C659 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C660 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C661 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C662 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C663 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C664 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C665 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C666 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C667 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C668 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C669 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C670 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C671 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C672 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C673 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C674 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C675 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C676 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C677 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C678 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C679 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C680 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C681 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C682 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C683 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C684 | 1-162-970-11 | CERAMIC CHIP | 0. 01uF | 10% | 25V |
| C685 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C686 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C687 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C688 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C689 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C690 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C691 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C692 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C693 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C694 | 1-162-915-11 | CERAMIC CHIP | 10PF | 0. 5PF | 50V |
| C695 | 1-164-185-11 | CERAMIC CHIP | 13PF | 5% | 50V |
| C696 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C697 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C698 | 1-162-928-11 | CERAMIC CHIP | 120PF | 5% | 50V |
| C699 | 1-162-922-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C701 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C702 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6. 3V |
| C704 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C710 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C713 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C714 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C715 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C716 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C717 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C718 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C719 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C720 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |
| C721 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C722 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C723 | 1-164-360-11 | CERAMIC CHIP | 0. 1uF | | 16V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C725 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C726 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C727 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C728 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C729 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C766 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C767 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C768 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C769 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C770 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C771 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C772 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C773 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C774 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C775 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C777 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C778 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C801 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C802 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C803 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C804 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C805 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C806 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C807 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C808 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C809 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C810 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C811 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C812 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C813 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C814 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C815 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C816 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C817 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C818 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C819 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C820 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C821 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C822 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C823 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C824 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C825 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C826 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C827 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C828 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C829 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C830 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C831 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C832 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C833 | 1-162-910-11 | CERAMIC CHIP | 5PF | 0.25PF | 50V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C834 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C835 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C836 | 1-164-315-11 | CERAMIC CHIP | 470PF | 5% | 50V |
| C837 | 1-164-315-11 | CERAMIC CHIP | 470PF | 5% | 50V |
| C838 | 1-164-315-11 | CERAMIC CHIP | 470PF | 5% | 50V |
| C839 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C840 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C841 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C842 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C843 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C844 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C845 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C846 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C847 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C848 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C849 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C850 | 1-164-185-11 | CERAMIC CHIP | 13PF | 5% | 50V |
| C851 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C852 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C853 | 1-162-910-11 | CERAMIC CHIP | 5PF | 0.25PF | 50V |
| C854 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C855 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C856 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C857 | 1-162-922-11 | CERAMIC CHIP | 39PF | 5% | 50V |
| C858 | 1-164-382-11 | CERAMIC CHIP | 91PF | 5% | 50V |
| C859 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C860 | 1-164-315-11 | CERAMIC CHIP | 470PF | 5% | 50V |
| C861 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C862 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C863 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C864 | 1-164-315-11 | CERAMIC CHIP | 470PF | 5% | 50V |
| C865 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C866 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C867 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C868 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C869 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C870 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C871 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C872 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C873 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C874 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C875 | 1-163-275-11 | CERAMIC CHIP | 0.001uF | 5% | 50V |
| C876 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C877 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C878 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C879 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C880 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C881 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C882 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C883 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |

**DV-19**

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C884 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C885 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C886 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C887 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C888 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C889 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C890 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C891 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C892 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C893 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C894 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C895 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C896 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C897 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C898 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C899 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C901 | 1-128-415-11 | ELECT CHIP | 68uF | 20% | 10V |
| C902 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C903 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C904 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C905 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C906 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C907 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C908 | 1-164-382-11 | CERAMIC CHIP | 91PF | 5% | 50V |
| C909 | 1-128-415-11 | ELECT CHIP | 68uF | 20% | 10V |
| C910 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C950 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C951 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C952 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C953 | 1-164-670-11 | CERAMIC CHIP | 1200PF | 5% | 16V |
| C954 | 1-165-176-11 | CERAMIC CHIP | 4700PF | 10% | 16V |
| C957 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C958 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C959 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C960 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C961 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C962 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C963 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C964 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C965 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C966 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C967 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C968 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C969 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C970 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C971 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C972 | 1-164-360-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C973 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| C974 | 1-162-923-11 | CERAMIC CHIP | 47PF | 5% | 50V |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| | | < CONNECTOR > | |
| CN001 | 1-580-723-11 | CONNECTOR, BOARD TO BOARD 28P | |
| CN002 | 1-580-723-11 | CONNECTOR, BOARD TO BOARD 28P | |
| * CN201 | 1-564-009-11 | PIN, CONNECTOR 10P | |
| CN501 | 1-580-723-11 | CONNECTOR, BOARD TO BOARD 28P | |
| CN502 | 1-580-723-11 | CONNECTOR, BOARD TO BOARD 28P | |
| CN503 | 1-580-723-11 | CONNECTOR, BOARD TO BOARD 28P | |
| CN504 | 1-580-723-11 | CONNECTOR, BOARD TO BOARD 28P | |
| CN601 | 1-506-479-11 | PIN, CONNECTOR 14P | |
| * CN602 | 1-564-007-11 | PIN, CONNECTOR 8P | |
| CN701 | 1-691-397-11 | CONNECTOR, FPC 21P | |
| * CN702 | 1-691-781-11 | CONNECTOR, FPC 10P | |
| | | < VARIABLE CAPACITOR > | |
| CV502 | 1-141-450-21 | CAP, ADJ | |
| | | < DIODE > | |
| D001 | 8-719-800-76 | DIODE 1SS226 | |
| D002 | 8-719-800-76 | DIODE 1SS226 | |
| D101 | 8-719-800-76 | DIODE 1SS226 | |
| D102 | 8-719-800-76 | DIODE 1SS226 | |
| D103 | 8-719-800-76 | DIODE 1SS226 | |
| D104 | 8-719-800-76 | DIODE 1SS226 | |
| D301 | 8-719-800-76 | DIODE 1SS226 | |
| D302 | 8-719-800-76 | DIODE 1SS226 | |
| D303 | 8-719-800-76 | DIODE 1SS226 | |
| D304 | 8-719-800-76 | DIODE 1SS226 | |
| D305 | 8-719-800-76 | DIODE 1SS226 | |
| D501 | 8-719-988-40 | DIODE HVR17TRF | |
| D502 | 8-719-988-40 | DIODE HVR17TRF | |
| D602 | 8-719-800-76 | DIODE 1SS226 | |
| | | < FERRITE BEAD > | |
| FB001 | 1-543-775-11 | FILTER, EMI | |
| FB002 | 1-543-775-11 | FILTER, EMI | |
| FB003 | 1-543-775-11 | FILTER, EMI | |
| FB004 | 1-543-775-11 | FILTER, EMI | |
| FB005 | 1-543-775-11 | FILTER, EMI | |
| FB006 | 1-543-775-11 | FILTER, EMI | |
| FB007 | 1-543-775-11 | FILTER, EMI | |
| FB008 | 1-543-775-11 | FILTER, EMI | |
| FB009 | 1-543-775-11 | FILTER, EMI | |
| FB010 | 1-543-775-11 | FILTER, EMI | |
| FB011 | 1-543-775-11 | FILTER, EMI | |
| FB012 | 1-543-775-11 | FILTER, EMI | |
| FB013 | 1-543-775-11 | FILTER, EMI | |
| FB014 | 1-543-775-11 | FILTER, EMI | |
| FB015 | 1-543-775-11 | FILTER, EMI | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| FB016 | 1-543-775-11 | FILTER, EMI | |
| FB017 | 1-543-813-21 | FILTER, EMI | |
| FB018 | 1-543-813-21 | FILTER, EMI | |
| FB019 | 1-543-813-21 | FILTER, EMI | |
| FB020 | 1-543-813-21 | FILTER, EMI | |
| FB021 | 1-543-813-21 | FILTER, EMI | |
| FB022 | 1-543-813-21 | FILTER, EMI | |
| FB023 | 1-543-813-21 | FILTER, EMI | |
| FB024 | 1-543-813-21 | FILTER, EMI | |
| FB025 | 1-543-813-21 | FILTER, EMI | |
| FB026 | 1-543-813-21 | FILTER, EMI | |
| FB027 | 1-543-813-21 | FILTER, EMI | |
| FB028 | 1-543-775-11 | FILTER, EMI | |
| FB029 | 1-543-775-11 | FILTER, EMI | |
| FB030 | 1-543-775-11 | FILTER, EMI | |
| FB031 | 1-543-775-11 | FILTER, EMI | |
| FB032 | 1-543-775-11 | FILTER, EMI | |
| FB033 | 1-543-775-11 | FILTER, EMI | |
| FB034 | 1-543-775-11 | FILTER, EMI | |
| FB035 | 1-543-775-11 | FILTER, EMI | |
| FB101 | 1-543-775-11 | FILTER, EMI | |
| FB102 | 1-543-775-11 | FILTER, EMI | |
| FB103 | 1-543-775-11 | FILTER, EMI | |
| FB104 | 1-543-775-11 | FILTER, EMI | |
| FB105 | 1-543-775-11 | FILTER, EMI | |
| FB106 | 1-543-775-11 | FILTER, EMI | |
| FB201 | 1-543-813-21 | FILTER, EMI | |
| FB202 | 1-543-813-21 | FILTER, EMI | |
| FB203 | 1-543-813-21 | FILTER, EMI | |
| FB204 | 1-543-813-21 | FILTER, EMI | |
| FB205 | 1-543-813-21 | FILTER, EMI | |
| FB206 | 1-543-813-21 | FILTER, EMI | |
| FB301 | 1-543-813-21 | FILTER, EMI | |
| FB302 | 1-543-813-21 | FILTER, EMI | |
| FB303 | 1-543-813-21 | FILTER, EMI | |
| FB304 | 1-543-813-21 | FILTER, EMI | |
| FB305 | 1-543-813-21 | FILTER, EMI | |
| FB306 | 1-543-813-21 | FILTER, EMI | |
| FB307 | 1-543-813-21 | FILTER, EMI | |
| FB308 | 1-543-813-21 | FILTER, EMI | |
| FB351 | 1-543-813-21 | FILTER, EMI | |
| FB352 | 1-543-813-21 | FILTER, EMI | |
| FB353 | 1-543-813-21 | FILTER, EMI | |
| FB354 | 1-543-813-21 | FILTER, EMI | |
| FB355 | 1-543-813-21 | FILTER, EMI | |
| FB356 | 1-543-813-21 | FILTER, EMI | |
| FB357 | 1-543-813-21 | FILTER, EMI | |
| FB501 | 1-543-813-21 | FILTER, EMI | |
| FB502 | 1-543-813-21 | FILTER, EMI | |
| FB503 | 1-543-813-21 | FILTER, EMI | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| FB504 | 1-543-813-21 | FILTER, EMI | |
| FB505 | 1-543-813-21 | FILTER, EMI | |
| FB506 | 1-543-813-21 | FILTER, EMI | |
| FB507 | 1-543-813-21 | FILTER, EMI | |
| FB508 | 1-543-813-21 | FILTER, EMI | |
| FB509 | 1-543-813-21 | FILTER, EMI | |
| FB510 | 1-543-775-11 | FILTER, EMI | |
| FB511 | 1-543-775-11 | FILTER, EMI | |
| FB512 | 1-543-775-11 | FILTER, EMI | |
| FB513 | 1-543-775-11 | FILTER, EMI | |
| FB514 | 1-543-775-11 | FILTER, EMI | |
| FB515 | 1-543-775-11 | FILTER, EMI | |
| FB516 | 1-543-775-11 | FILTER, EMI | |
| FB517 | 1-543-775-11 | FILTER, EMI | |
| FB518 | 1-543-775-11 | FILTER, EMI | |
| FB519 | 1-543-775-11 | FILTER, EMI | |
| FB520 | 1-543-775-11 | FILTER, EMI | |
| FB521 | 1-543-775-11 | FILTER, EMI | |
| FB522 | 1-543-775-11 | FILTER, EMI | |
| FB523 | 1-543-775-11 | FILTER, EMI | |
| FB524 | 1-543-775-11 | FILTER, EMI | |
| FB525 | 1-543-775-11 | FILTER, EMI | |
| FB526 | 1-543-775-11 | FILTER, EMI | |
| FB527 | 1-543-775-11 | FILTER, EMI | |
| FB528 | 1-543-775-11 | FILTER, EMI | |
| FB529 | 1-543-775-11 | FILTER, EMI | |
| FB530 | 1-543-775-11 | FILTER, EMI | |
| FB531 | 1-543-775-11 | FILTER, EMI | |
| FB532 | 1-543-775-11 | FILTER, EMI | |
| FB533 | 1-543-775-11 | FILTER, EMI | |
| FB534 | 1-543-775-11 | FILTER, EMI | |
| FB535 | 1-543-775-11 | FILTER, EMI | |
| FB536 | 1-543-775-11 | FILTER, EMI | |
| FB537 | 1-543-775-11 | FILTER, EMI | |
| FB538 | 1-543-775-11 | FILTER, EMI | |
| FB539 | 1-543-775-11 | FILTER, EMI | |
| FB540 | 1-543-775-11 | FILTER, EMI | |
| FB541 | 1-543-775-11 | FILTER, EMI | |
| FB542 | 1-543-775-11 | FILTER, EMI | |
| FB543 | 1-543-775-11 | FILTER, EMI | |
| FB544 | 1-543-775-11 | FILTER, EMI | |
| FB545 | 1-543-775-11 | FILTER, EMI | |
| FB546 | 1-543-775-11 | FILTER, EMI | |
| FB547 | 1-543-775-11 | FILTER, EMI | |
| FB548 | 1-543-813-21 | FILTER, EMI | |
| FB601 | 1-543-813-21 | FILTER, EMI | |
| FB602 | 1-543-813-21 | FILTER, EMI | |
| FB603 | 1-543-813-21 | FILTER, EMI | |
| FB604 | 1-543-813-21 | FILTER, EMI | |
| FB605 | 1-543-813-21 | FILTER, EMI | |

**DV-19**

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| FB606 | 1-543-813-21 | FILTER, EMI | |
| FB607 | 1-543-813-21 | FILTER, EMI | |
| FB608 | 1-543-813-21 | FILTER, EMI | |
| FB609 | 1-543-813-21 | FILTER, EMI | |
| FB610 | 1-543-813-21 | FILTER, EMI | |
| FB611 | 1-543-813-21 | FILTER, EMI | |
| FB612 | 1-543-813-21 | FILTER, EMI | |
| FB613 | 1-543-813-21 | FILTER, EMI | |
| FB614 | 1-543-813-21 | FILTER, EMI | |
| FB628 | 1-543-813-21 | FILTER, EMI | |
| FB629 | 1-543-813-21 | FILTER, EMI | |
| FB700 | 1-543-813-21 | FILTER, EMI | |
| FB701 | 1-543-813-21 | FILTER, EMI | |
| FB702 | 1-543-813-21 | FILTER, EMI | |
| FB703 | 1-543-813-21 | FILTER, EMI | |
| FB704 | 1-543-813-21 | FILTER, EMI | |
| FB705 | 1-543-813-21 | FILTER, EMI | |
| FB706 | 1-543-813-21 | FILTER, EMI | |
| FB707 | 1-543-813-21 | FILTER, EMI | |
| FB708 | 1-543-813-21 | FILTER, EMI | |
| FB709 | 1-543-813-21 | FILTER, EMI | |
| FB710 | 1-543-813-21 | FILTER, EMI | |
| FB711 | 1-543-813-21 | FILTER, EMI | |
| FB713 | 1-543-813-21 | FILTER, EMI | |
| FB714 | 1-543-813-21 | FILTER, EMI | |
| FB715 | 1-543-813-21 | FILTER, EMI | |
| FB716 | 1-543-813-21 | FILTER, EMI | |
| FB717 | 1-543-813-21 | FILTER, EMI | |
| FB718 | 1-543-813-21 | FILTER, EMI | |
| FB719 | 1-543-813-21 | FILTER, EMI | |
| FB720 | 1-543-813-21 | FILTER, EMI | |
| FB721 | 1-543-813-21 | FILTER, EMI | |
| FB722 | 1-543-813-21 | FILTER, EMI | |
| FB723 | 1-543-813-21 | FILTER, EMI | |
| FB724 | 1-543-813-21 | FILTER, EMI | |
| FB725 | 1-543-813-21 | FILTER, EMI | |
| FB726 | 1-543-813-21 | FILTER, EMI | |
| FB727 | 1-543-813-21 | FILTER, EMI | |
| FB728 | 1-543-813-21 | FILTER, EMI | |
| FB729 | 1-543-813-21 | FILTER, EMI | |
| FB730 | 1-543-813-21 | FILTER, EMI | |
| FB731 | 1-543-813-21 | FILTER, EMI | |
| FB732 | 1-543-813-21 | FILTER, EMI | |
| FB733 | 1-543-813-21 | FILTER, EMI | |
| FB734 | 1-543-813-21 | FILTER, EMI | |
| FB735 | 1-543-813-21 | FILTER, EMI | |
| FB736 | 1-543-813-21 | FILTER, EMI | |
| FB737 | 1-543-813-21 | FILTER, EMI | |
| FB738 | 1-543-813-21 | FILTER, EMI | |
| FB739 | 1-543-813-21 | FILTER, EMI | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| FB740 | 1-543-813-21 | FILTER, EMI | |
| FB741 | 1-543-813-21 | FILTER, EMI | |
| FB742 | 1-543-813-21 | FILTER, EMI | |
| FB743 | 1-543-813-21 | FILTER, EMI | |
| FB744 | 1-543-813-21 | FILTER, EMI | |
| FB745 | 1-543-813-21 | FILTER, EMI | |
| FB746 | 1-543-813-21 | FILTER, EMI | |
| FB747 | 1-543-813-21 | FILTER, EMI | |
| FB748 | 1-543-813-21 | FILTER, EMI | |
| FB749 | 1-543-813-21 | FILTER, EMI | |
| FB750 | 1-543-813-21 | FILTER, EMI | |
| FB751 | 1-543-813-21 | FILTER, EMI | |
| FB752 | 1-543-813-21 | FILTER, EMI | |
| FB753 | 1-543-813-21 | FILTER, EMI | |
| FB754 | 1-543-813-21 | FILTER, EMI | |
| FB755 | 1-543-813-21 | FILTER, EMI | |
| FB756 | 1-543-813-21 | FILTER, EMI | |
| FB757 | 1-543-813-21 | FILTER, EMI | |
| FB758 | 1-543-813-21 | FILTER, EMI | |
| FB759 | 1-543-813-21 | FILTER, EMI | |
| FB760 | 1-543-813-21 | FILTER, EMI | |
| FB761 | 1-543-813-21 | FILTER, EMI | |
| FB762 | 1-543-813-21 | FILTER, EMI | |
| FB763 | 1-543-813-21 | FILTER, EMI | |
| FB764 | 1-543-813-21 | FILTER, EMI | |
| FB765 | 1-543-813-21 | FILTER, EMI | |
| FB766 | 1-543-813-21 | FILTER, EMI | |
| FB767 | 1-543-813-21 | FILTER, EMI | |
| FB768 | 1-543-813-21 | FILTER, EMI | |
| FB769 | 1-543-813-21 | FILTER, EMI | |
| FB770 | 1-543-813-21 | FILTER, EMI | |
| FB771 | 1-543-813-21 | FILTER, EMI | |
| FB772 | 1-543-813-21 | FILTER, EMI | |
| FB773 | 1-543-813-21 | FILTER, EMI | |
| FB774 | 1-543-813-21 | FILTER, EMI | |
| FB775 | 1-543-813-21 | FILTER, EMI | |
| FB776 | 1-543-813-21 | FILTER, EMI | |
| FB777 | 1-543-813-21 | FILTER, EMI | |
| FB778 | 1-543-813-21 | FILTER, EMI | |
| FB779 | 1-543-813-21 | FILTER, EMI | |
| FB780 | 1-543-813-21 | FILTER, EMI | |
| FB781 | 1-543-813-21 | FILTER, EMI | |
| FB782 | 1-543-813-21 | FILTER, EMI | |
| FB783 | 1-543-813-21 | FILTER, EMI | |
| FB784 | 1-543-813-21 | FILTER, EMI | |
| FB785 | 1-543-813-21 | FILTER, EMI | |
| FB786 | 1-543-813-21 | FILTER, EMI | |
| FB787 | 1-543-813-21 | FILTER, EMI | |
| FB788 | 1-543-813-21 | FILTER, EMI | |
| FB789 | 1-543-813-21 | FILTER, EMI | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| FB790 | 1-543-813-21 | FILTER, EMI | |
| FB791 | 1-543-813-21 | FILTER, EMI | |
| FB792 | 1-543-813-21 | FILTER, EMI | |
| FB793 | 1-543-813-21 | FILTER, EMI | |
| FB794 | 1-543-813-21 | FILTER, EMI | |
| FB795 | 1-543-813-21 | FILTER, EMI | |
| FB796 | 1-543-813-21 | FILTER, EMI | |
| FB797 | 1-543-813-21 | FILTER, EMI | |
| FB798 | 1-543-813-21 | FILTER, EMI | |
| FB799 | 1-543-813-21 | FILTER, EMI | |
| FB951 | 1-543-813-21 | FILTER, EMI | |
| FB952 | 1-543-813-21 | FILTER, EMI | |
| FB953 | 1-543-813-21 | FILTER, EMI | |
| FB954 | 1-543-813-21 | FILTER, EMI | |
| FB955 | 1-543-813-21 | FILTER, EMI | |
| FB956 | 1-543-813-21 | FILTER, EMI | |
| FB957 | 1-543-813-21 | FILTER, EMI | |
| FB958 | 1-543-813-21 | FILTER, EMI | |
| FB959 | 1-543-813-21 | FILTER, EMI | |
| FB960 | 1-543-813-21 | FILTER, EMI | |
| | | < FILTER > | |
| FL101 | 1-415-551-11 | DELAY LINE 140NS | |
| FL401 | 1-239-593-21 | FILTER, LC | |
| FL402 | 1-239-593-21 | FILTER, LC | |
| FL501 | 1-236-071-11 | ENCAPSULATED COMPONENT | |
| FL950 | 1-236-381-11 | LPF | |
| FL951 | 1-236-381-11 | LPF | |
| | | < IC > | |
| IC001 | 8-752-334-55 | IC CXD1175AM (A/D CONVERTER) | |
| IC002 | 8-752-334-55 | IC CXD1175AM (A/D CONVERTER) | |
| IC003 | 8-752-342-61 | IC CXD2105AQ (DIGITAL Y/C SEPARATOR (WITH D/A CONVERTER)) | |
| IC004 | 8-752-342-61 | IC CXD2105AQ (DIGITAL Y/C SEPARATOR (WITH D/A CONVERTER)) | |
| IC005 | 8-759-710-12 | IC NJM2230M (A-BUS SYNC DET) | |
| IC006 | 8-759-710-12 | IC NJM2230M (B-BUS SYNC DET) | |
| IC101 | 8-759-032-14 | IC MC74HC08AF (GATE) | |
| IC102 | 8-759-030-55 | IC MC1496M (B-Y MOD) | |
| IC103 | 8-759-030-55 | IC MC1496M (R-Y MOD) | |
| IC104 | 8-752-033-58 | IC V7040 (NTSC/PAL ENCODER) | |
| IC105 | 8-759-030-55 | IC MC1496M (R-Y MOD) | |
| IC106 | 8-759-030-55 | IC MC1496M (B-Y MOD) | |
| IC107 | 8-759-011-65 | IC MC74HC4053F (SWITCH) | |
| IC108 | 8-759-150-06 | IC uPC324G2-E2 (AGC DET AMP) | |
| IC109 | 8-759-504-47 | IC TL026CPS (VCA) | |
| IC110 | 8-759-242-74 | IC TC7W04F (BUFFER) | |
| IC201 | 8-759-011-65 | IC MC74HC4053F (SELECT SW) | |
| IC202 | 8-759-710-62 | IC NJM2246M (V/PGM SELECT SWITCH) | |
| IC203 | 8-759-011-65 | IC MC74HC4053F (EV BST SELECT) | |
| IC204 | 8-759-603-56 | IC M51272FP (NTSC/PAL ENCODER) | |
| IC205 | 8-759-710-61 | IC NJM2229M (SYNC SEPARATOR) | |
| IC206 | 8-759-630-81 | IC M50455-079FP (CHARACTOR GENERATOR) | |
| IC207 | 8-759-242-74 | IC TC7W04F (INV) | |
| IC301 | 8-759-032-20 | IC MC74HC32AF (DELAY) | |
| IC302 | 8-759-239-23 | IC TC74HC86AF (GATE) | |
| IC303 | 8-759-032-23 | IC MC74HC74AF (DATA LATCH) | |
| IC304 | 8-759-011-65 | IC MC74HC4053F (SELECT SW) | |
| IC305 | 8-759-032-01 | IC MC74HC00AF (GATE) | |
| IC307 | 8-759-011-65 | IC MC74HC4053F (SELECT SW) | |
| IC308 | 8-759-011-65 | IC MC74HC4053F (SELECT SW) | |
| IC401 | 8-759-242-74 | IC TC7W04F (INV) | |
| IC402 | 8-759-925-78 | IC SN74HC10ANS (SELECT GATE) | |
| IC403 | 8-752-053-21 | IC CXA1211M (VCA) | |
| IC404 | 8-759-230-XX | IC TC74HC4053AF (R/BC SELECT SW) | |
| IC405 | 8-759-230-XX | IC TC74HC4053AF (R/BC SELECT SW) | |
| IC406 | 8-759-230-XX | IC TC74HC4053AF (R/BC SELECT SW) | |
| IC407 | 8-759-230-XX | IC TC74HC4053AF (R/BC SELECT SW) | |
| IC501 | 8-759-242-74 | IC TC7W04F (CHROMA HUE PHASE SHIFTER) | |
| IC502 | 8-759-242-74 | IC TC7W04F (CHROMA HUE PHASE SHIFTER) | |
| IC503 | 8-759-902-88 | IC SN74LS123NS (M.M) | |
| IC504 | 8-752-332-67 | IC CXD1217M (SYNC GENELATOR) | |
| IC505 | 8-759-030-16 | IC MC34182M (CHROMA HUE PHASE SHIFTER) | |
| IC506 | 8-759-902-88 | IC SN74LS123NS (M.M) | |
| IC507 | 8-759-032-50 | IC MC74HC241AF (SYNC DRIVER) | |
| IC508 | 8-759-242-74 | IC TC7W04F (INV) | |
| IC509 | 8-759-822-XX | IC L88MS05T-FA-TL (+5V REG) | |
| IC510 | 8-759-822-XX | IC L88MS05T-FA-TL (+5V REG) | |
| IC511 | 8-759-242-68 | IC TC7W32F (READOUT BLKG) | |
| IC512 | 8-759-822-XX | IC L88MS05T-FA-TL (+5V REG) | |
| IC513 | 8-759-822-XX | IC L88MS05T-FA-TL (+5V REG) | |
| IC514 | 8-759-030-16 | IC MC34182M (CHROMA HUE PHASE SHIFTER) | |
| IC515 | 8-759-902-88 | IC SN74LS123NS (M.M) | |
| IC516 | 8-759-055-75 | IC uPD75104G-633-1B (MEMORY CONTROL MICROCOMPUTER) | |
| IC517 | 8-759-206-28 | IC TC74HC123F (M.M) | |
| IC518 | 8-759-926-98 | IC SN74HC4040ANS (ADVANCE SYNC GENERATOR) | |
| IC519 | 8-759-030-16 | IC MC34182M (HCENT PHASE SHIFTER) | |
| IC520 | 8-759-926-08 | IC SN74HC133NS (ADVANCE SYNC GENERATOR) | |
| IC521 | 8-759-907-81 | IC SN74LS221NS (M.M) | |
| IC522 | 8-759-032-23 | IC MC74HC74AF (D-LATCH) | |
| IC523 | 8-752-332-67 | IC CXD1217M (SYNC GENERATOR) | |
| IC524 | 8-752-306-51 | IC CX23065A (PHASE COMP) | |
| IC525 | 8-759-032-01 | IC MC74HC00AF (KEY START SELECT) | |
| IC526 | 8-759-242-74 | IC TC7W04F (MAIN & WIPE MICON CLOCK GENERATOR) | |
| IC527 | 8-759-242-76 | IC TC7W08F (GATE) | |
| IC528 | 8-759-822-XX | IC L88MS05T-FA-TL (+5V REG) | |
| IC529 | 8-759-277-76 | IC uPD78P324GJ-5BJ-991 (WIPE GEOME TRY PROCESSOR) | |
| IC530 | 8-759-242-74 | IC TC7W04F (AMP) | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| IC531 | 8-759-979-37 | IC MSM72H017GS-VK (WIPE PATTERN GENERATOR) | |
| IC532 | 8-759-032-23 | IC MC74HC74AF (D-LATCH) | |
| IC533 | 8-759-239-23 | IC TC74HC86AF (GATE) | |
| IC534 | 8-759-031-84 | IC SC7S04F (INV) | |
| IC535 | 8-759-822-XX | IC L88MS05T-FA-TL (+5V REG) | |
| IC536 | 8-759-032-23 | IC MC74HC74AF (ADVANCE SYNC GENERATOR) | |
| IC537 | 8-759-242-72 | IC TC7W00F (ADVANCE SYNC GENERATOR) | |
| IC539 | 8-759-242-68 | IC TC7W32F (GATE) | |
| IC540 | 8-759-007-80 | IC MC74HC175F (SHIFT COUNTER) | |
| IC541 | 8-759-180-86 | IC TC7W74F-TE12L (SHIFT COUNTER) | |
| IC542 | 8-759-926-97 | IC SN74HC4024NS (SHIFT COUNTER) | |
| IC543 | 8-759-038-46 | IC SC7S00F (INV) | |
| IC602 | 8-759-011-65 | IC MC74HC4053F (SWITCH) | |
| IC603 | 8-759-032-14 | IC MC74HC08AF (GATE) | |
| IC604 | 8-759-242-74 | IC TC7W04F (INV) | |
| IC605 | 8-759-011-65 | IC MC74HC4053F (SWITCH) | |
| IC606 | 8-759-242-68 | IC TC7W32F (OR) | |
| IC607 | 8-759-908-92 | IC TL084CNS (BUFFER) | |
| IC608 | 8-759-030-55 | IC MC1496M (MOD) | |
| IC609 | 8-759-030-55 | IC MC1496M (MOD) | |
| IC610 | 8-759-030-55 | IC MC1496M (MOD) | |
| IC611 | 8-759-030-55 | IC MC1496M (MOD) | |
| IC612 | 8-759-239-23 | IC TC74HC86AF (GATE) | |
| IC613 | 8-759-011-65 | IC MC74HC4053F (SWITCH) | |
| IC614 | 8-759-011-64 | IC MC74HC4052F (SWITCH) | |
| IC615 | 8-759-603-56 | IC M51272FP (NTSC/PAL ENCODER) | |
| IC616 | 8-759-011-65 | IC MC74HC4053F (SWITCH) | |
| IC617 | 8-759-011-65 | IC MC74HC4053F (SWITCH) | |
| IC618 | 8-759-011-65 | IC MC74HC4053F (SWITCH) | |
| IC619 | 8-759-603-56 | IC M51272FP (NTSC/PAL ENCODER) | |
| IC620 | 8-759-030-55 | IC MC1496M (MOD) | |
| IC621 | 8-759-030-55 | IC MC1496M (MOD) | |
| IC622 | 8-752-052-73 | IC CXA1451M (75 DRIVER) | |
| IC623 | 8-752-052-73 | IC CXA1451M (75 DRIVER) | |
| IC624 | 8-752-052-73 | IC CXA1451M (75 DRIVER) | |
| IC625 | 8-752-052-73 | IC CXA1451M (75 DRIVER) | |
| IC626 | 8-759-245-79 | IC TA79005S (-5V REG) | |
| IC627 | 8-759-144-82 | IC uPC2405HF (+5V REG) | |
| IC628 | 8-759-245-45 | IC TA78L09F (+9V REG) | |
| IC629 | 8-759-242-78 | IC TC7W02F (OR) | |
| IC701 | 8-759-822-XX | IC L88MS05T-FA-TL (+5V REG) | |
| IC703 | 8-759-937-56 | IC S-8054ALB-LM-S (RESET) | |
| IC704 | 8-759-635-27 | IC M62352GP (EVR D/A CONVERTER) | |
| IC705 | 8-759-635-27 | IC M62352GP (EVR D/A CONVERTER) | |
| IC706 | 8-759-635-27 | IC M62352GP (EVR D/A CONVERTER) | |
| IC707 | 8-759-635-27 | IC M62352GP (EVR D/A CONVERTER) | |
| IC709 | 8-759-551-68 | IC M6M80021FP (EEPROM) | |
| IC710 | 8-759-551-68 | IC M6M80021FP (EEPROM) | |
| IC711 | 8-759-938-68 | IC CXD1095Q (I/O EXPANDER) | |
| IC730 | 8-759-277-75 | IC M37702E4A-GDX991-FP (MAIN MICROCOMPUTER) | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| IC950 | 8-759-505-98 | IC MB620461 (LUMI KEY/CHROMA KEY) | |
| IC951 | 8-759-907-81 | IC SN74LS221NS (M.M) | |
| IC952 | 8-752-334-64 | IC CXD1171M (D/A CONVERTER) | |
| IC954 | 8-752-334-64 | IC CXD1171M (D/A CONVERTER) | |
| IC955 | 8-759-234-20 | IC TC7S08F | |

< COIL >

| | | | |
|---|---|---|---|
| L001 | 1-410-382-31 | INDUCTOR CHIP 12uH | |
| L002 | 1-410-382-31 | INDUCTOR CHIP 12uH | |
| L005 | 1-410-387-11 | INDUCTOR CHIP 33uH | |
| L006 | 1-410-387-11 | INDUCTOR CHIP 33uH | |
| L008 | 1-410-387-11 | INDUCTOR CHIP 33uH | |
| L010 | 1-410-387-11 | INDUCTOR CHIP 33uH | |
| L101 | 1-410-386-11 | INDUCTOR CHIP 27uH | |
| L102 | 1-410-387-11 | INDUCTOR CHIP 33uH | |
| L103 | 1-410-384-31 | INDUCTOR CHIP 18uH | |
| L201 | 1-410-389-31 | INDUCTOR CHIP 47uH | |
| L202 | 1-410-393-11 | INDUCTOR CHIP 100uH | |
| L203 | 1-410-393-11 | INDUCTOR CHIP 100uH | |
| L204 | 1-410-386-11 | INDUCTOR CHIP 27uH | |
| L205 | 1-410-387-11 | INDUCTOR CHIP 33uH | |
| L206 | 1-410-384-31 | INDUCTOR CHIP 18uH | |
| L207 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L208 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L209 | 1-410-386-11 | INDUCTOR CHIP 27uH | |
| L210 | 1-410-386-11 | INDUCTOR CHIP 27uH | |
| L211 | 1-410-383-31 | INDUCTOR CHIP 15uH | |
| L501 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L502 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L503 | 1-410-384-31 | INDUCTOR CHIP 18uH | |
| L504 | 1-410-392-11 | INDUCTOR CHIP 82uH | |
| L601 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L602 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L603 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L604 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L605 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L606 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L607 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L608 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L609 | 1-410-389-31 | INDUCTOR CHIP 47uH | |
| L610 | 1-410-386-11 | INDUCTOR CHIP 27uH | |
| L611 | 1-410-387-11 | INDUCTOR CHIP 33uH | |
| L612 | 1-410-384-31 | INDUCTOR CHIP 18uH | |
| L613 | 1-412-033-11 | INDUCTOR CHIP 220uH | |
| L614 | 1-412-033-11 | INDUCTOR CHIP 220uH | |
| L615 | 1-412-033-11 | INDUCTOR CHIP 220uH | |
| L616 | 1-412-033-11 | INDUCTOR CHIP 220uH | |
| L617 | 1-410-393-11 | INDUCTOR CHIP 100uH | |
| L618 | 1-410-393-11 | INDUCTOR CHIP 100uH | |
| L619 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L620 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L621 | 1-410-658-31 | INDUCTOR CHIP 220uH | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| L622 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L623 | 1-410-386-11 | INDUCTOR CHIP 27uH | |
| L624 | 1-410-387-11 | INDUCTOR CHIP 33uH | |
| L625 | 1-410-384-31 | INDUCTOR CHIP 18uH | |
| L626 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| L627 | 1-410-658-31 | INDUCTOR CHIP 220uH | |
| | | < TRANSISTOR > | |
| Q001 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q002 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q003 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q004 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q005 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q006 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q101 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q102 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q103 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q104 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q105 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q106 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q107 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q108 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q109 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q110 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q111 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q112 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q113 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q114 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q115 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q116 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q117 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q118 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q119 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q120 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q121 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q122 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q123 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q124 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q125 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q126 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q127 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q128 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q129 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q130 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q131 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q201 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q202 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q203 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| Q204 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q205 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q206 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q207 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q208 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q209 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q210 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q211 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q212 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q213 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q214 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q215 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q216 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q217 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q218 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q219 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q301 | 8-729-140-47 | TRANSISTOR 2SC3735-L-B35 | |
| Q302 | 8-729-019-10 | TRANSISTOR 2SA1464-Y12Y13Y14 | |
| Q303 | 8-729-140-47 | TRANSISTOR 2SC3735-L-B35 | |
| Q304 | 8-729-019-10 | TRANSISTOR 2SA1464-Y12Y13Y14 | |
| Q305 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q306 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q307 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q308 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q309 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q310 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q401 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q402 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q403 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q404 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q405 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q406 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q407 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q408 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q409 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q410 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q411 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q412 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q413 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q414 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q415 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q416 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q417 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q418 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q501 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q502 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q503 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q601 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q602 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q603 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |

# DV-19

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| Q604 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q605 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q606 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q607 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q608 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q609 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q610 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q611 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q612 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q613 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q614 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q615 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q616 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q617 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q618 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q619 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q620 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q621 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q622 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q623 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q624 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q625 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q626 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q627 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q628 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q629 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q630 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q631 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q632 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q633 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q634 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q635 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q636 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q637 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q638 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q639 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q640 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q641 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q642 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q701 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q702 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q703 | 8-729-901-01 | TRANSISTOR DTC144EK | |
| Q950 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q951 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q952 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q953 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| | | < RESISTOR > | | | |
| R001 | 1-216-805-11 | METAL CHIP | 47 | 5% | 1/16W |
| R002 | 1-216-805-11 | METAL CHIP | 47 | 5% | 1/16W |
| R003 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R004 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R005 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R006 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R007 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R008 | 1-218-676-11 | METAL CHIP | 220 | 0.50% | 1/16W |
| R009 | 1-218-705-11 | METAL CHIP | 3.6K | 0.50% | 1/16W |
| R010 | 1-218-705-11 | METAL CHIP | 3.6K | 0.50% | 1/16W |
| R011 | 1-218-676-11 | METAL CHIP | 220 | 0.50% | 1/16W |
| R012 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R013 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R014 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R015 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R016 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R017 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R018 | 1-218-676-11 | METAL CHIP | 220 | 0.50% | 1/16W |
| R019 | 1-218-705-11 | METAL CHIP | 3.6K | 0.50% | 1/16W |
| R020 | 1-218-705-11 | METAL CHIP | 3.6K | 0.50% | 1/16W |
| R021 | 1-218-676-11 | METAL CHIP | 220 | 0.50% | 1/16W |
| R022 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R023 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R024 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R025 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R026 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R027 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R028 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R029 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R030 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R031 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R032 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R033 | 1-216-838-11 | METAL CHIP | 27K | 5% | 1/16W |
| R034 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R035 | 1-216-838-11 | METAL CHIP | 27K | 5% | 1/16W |
| R036 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R037 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R038 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R051 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R052 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R081 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R082 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R083 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R084 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R085 | 1-216-831-11 | METAL CHIP | 6.8K | 5% | 1/16W |
| R086 | 1-216-831-11 | METAL CHIP | 6.8K | 5% | 1/16W |
| R087 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/16W |
| R088 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/16W |
| R089 | 1-216-824-11 | METAL CHIP | 1.8K | 5% | 1/16W |
| R090 | 1-216-824-11 | METAL CHIP | 1.8K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R091 | 1-216-824-11 | METAL CHIP | 1.8K | 5% | 1/16W |
| R092 | 1-218-699-11 | METAL CHIP | 2K | 0.50% | 1/16W |
| R093 | 1-216-828-11 | METAL CHIP | 3.9K | 5% | 1/16W |
| R094 | 1-218-836-11 | METAL CHIP | 360 | 0.50% | 1/16W |
| R095 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R096 | 1-216-828-11 | METAL CHIP | 3.9K | 5% | 1/16W |
| R097 | 1-218-836-11 | METAL CHIP | 360 | 0.50% | 1/16W |
| R098 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R099 | 1-216-815-11 | METAL CHIP | 330 | 5% | 1/16W |
| R100 | 1-216-815-11 | METAL CHIP | 330 | 5% | 1/16W |
| R101 | 1-216-815-11 | METAL CHIP | 330 | 5% | 1/16W |
| R102 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R103 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R104 | 1-218-699-11 | METAL CHIP | 2K | 0.50% | 1/16W |
| R105 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R106 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R107 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R108 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R109 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R110 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R111 | 1-218-722-11 | METAL CHIP | 18K | 0.50% | 1/16W |
| R112 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R113 | 1-218-866-11 | METAL CHIP | 6.2K | 0.50% | 1/16W |
| R114 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R115 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R116 | 1-218-699-11 | METAL CHIP | 2K | 0.50% | 1/16W |
| R117 | 1-218-699-11 | METAL CHIP | 2K | 0.50% | 1/16W |
| R118 | 1-216-828-11 | METAL CHIP | 3.9K | 5% | 1/16W |
| R119 | 1-216-828-11 | METAL CHIP | 3.9K | 5% | 1/16W |
| R120 | 1-218-836-11 | METAL CHIP | 360 | 0.50% | 1/16W |
| R121 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R122 | 1-218-836-11 | METAL CHIP | 360 | 0.50% | 1/16W |
| R123 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R124 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R125 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R126 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R127 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R128 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R129 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R130 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R131 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R132 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R133 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R134 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R135 | 1-218-866-11 | METAL CHIP | 6.2K | 0.50% | 1/16W |
| R136 | 1-218-722-11 | METAL CHIP | 18K | 0.50% | 1/16W |
| R137 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R138 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R139 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R140 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R141 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R142 | 1-218-676-11 | METAL CHIP | 220 | 0.50% | 1/16W |
| R143 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R144 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R145 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R146 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R147 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R148 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R149 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R150 | 1-218-668-11 | METAL CHIP | 100 | 0.50% | 1/16W |
| R151 | 1-218-670-11 | METAL CHIP | 120 | 0.50% | 1/16W |
| R152 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R153 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W |
| R154 | 1-216-831-11 | METAL CHIP | 6.8K | 5% | 1/16W |
| R155 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/16W |
| R156 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R157 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R158 | 1-216-823-11 | METAL CHIP | 1.5K | 5% | 1/16W |
| R159 | 1-216-823-11 | METAL CHIP | 1.5K | 5% | 1/16W |
| R160 | 1-218-708-11 | METAL CHIP | 4.7K | 0.50% | 1/16W |
| R161 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R162 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R163 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R164 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R165 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R166 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R167 | 1-218-867-11 | METAL CHIP | 6.8K | 0.50% | 1/16W |
| R168 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R169 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R170 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R171 | 1-216-830-11 | METAL CHIP | 5.6K | 5% | 1/16W |
| R172 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R173 | 1-216-832-11 | METAL CHIP | 8.2K | 5% | 1/16W |
| R174 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R175 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R176 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R177 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R178 | 1-216-831-11 | METAL CHIP | 6.8K | 5% | 1/16W |
| R179 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/16W |
| R180 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R181 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R182 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R183 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R184 | 1-216-823-11 | METAL CHIP | 1.5K | 5% | 1/16W |
| R185 | 1-216-822-11 | METAL CHIP | 1.2K | 5% | 1/16W |
| R186 | 1-216-828-11 | METAL CHIP | 3.9K | 5% | 1/16W |
| R187 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R188 | 1-218-706-11 | METAL CHIP | 3.9K | 5% | 1/16W |
| R189 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/16W |
| R190 | 1-216-830-11 | METAL CHIP | 5.6K | 5% | 1/16W |

# DV-19

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R191 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R192 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R193 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R194 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R195 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R196 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R201 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R202 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R203 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R204 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R205 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R206 | 1-218-698-11 | METAL CHIP | 1.8K | 0.50% | 1/16W |
| R207 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R208 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R209 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R210 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R211 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R212 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R213 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R214 | 1-216-818-11 | METAL CHIP | 560 | 5% | 1/16W |
| R215 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R216 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R217 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R218 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R219 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R220 | 1-216-832-11 | METAL CHIP | 8.2K | 5% | 1/16W |
| R221 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R222 | 1-216-816-11 | METAL CHIP | 390 | 5% | 1/16W |
| R223 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R224 | 1-218-697-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R225 | 1-218-697-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R226 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R227 | 1-216-823-11 | METAL CHIP | 1.5K | 5% | 1/16W |
| R228 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R229 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R230 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R231 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R232 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R233 | 1-216-846-11 | METAL CHIP | 120K | 5% | 1/16W |
| R234 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R235 | 1-218-699-11 | METAL CHIP | 2K | 0.50% | 1/16W |
| R236 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R237 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R238 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R239 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R240 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R241 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R242 | 1-216-818-11 | METAL CHIP | 560 | 5% | 1/16W |
| R243 | 1-216-824-11 | METAL CHIP | 1.8K | 5% | 1/16W |
| R244 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R245 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R246 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R249 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R250 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R251 | 1-216-823-11 | METAL CHIP | 1.5K | 5% | 1/16W |
| R252 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/16W |
| R253 | 1-218-833-11 | METAL CHIP | 270 | 0.50% | 1/16W |
| R255 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R256 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R258 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R259 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R260 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R261 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R262 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R263 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R264 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R265 | 1-216-816-11 | METAL CHIP | 390 | 5% | 1/16W |
| R266 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R267 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R268 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R269 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R270 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R272 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R273 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R274 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R275 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R276 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R277 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R278 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R279 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R280 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R281 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R282 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R283 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R284 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R285 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R286 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R301 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R302 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R303 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R304 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R305 | 1-216-816-11 | METAL CHIP | 390 | 5% | 1/16W |
| R306 | 1-216-828-11 | METAL CHIP | 3.9K | 5% | 1/16W |
| R307 | 1-216-828-11 | METAL CHIP | 3.9K | 5% | 1/16W |
| R308 | 1-216-816-11 | METAL CHIP | 390 | 5% | 1/16W |
| R309 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R310 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R311 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R312 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R313 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R314 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R315 | 1-216-805-11 | METAL CHIP | 47 | 5% | 1/16W |
| R316 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R317 | 1-218-700-11 | METAL CHIP | 2.2K | 0.50% | 1/16W |
| R318 | 1-218-700-11 | METAL CHIP | 2.2K | 0.50% | 1/16W |
| R319 | 1-218-700-11 | METAL CHIP | 2.2K | 0.50% | 1/16W |
| R320 | 1-218-700-11 | METAL CHIP | 2.2K | 0.50% | 1/16W |
| R321 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R322 | 1-216-805-11 | METAL CHIP | 47 | 5% | 1/16W |
| R323 | 1-218-700-11 | METAL CHIP | 2.2K | 0.50% | 1/16W |
| R324 | 1-218-848-11 | METAL CHIP | 1.1K | 0.50% | 1/16W |
| R325 | 1-218-848-11 | METAL CHIP | 1.1K | 0.50% | 1/16W |
| R326 | 1-218-848-11 | METAL CHIP | 1.1K | 0.50% | 1/16W |
| R327 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R328 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R329 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R330 | 1-216-805-11 | METAL CHIP | 47 | 5% | 1/16W |
| R331 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R332 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R333 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R334 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R335 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R336 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R337 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R338 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R401 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R402 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R403 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R404 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R405 | 1-216-826-11 | METAL CHIP | 2.7K | 5% | 1/16W |
| R406 | 1-216-826-11 | METAL CHIP | 2.7K | 5% | 1/16W |
| R407 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R408 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R409 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R410 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R411 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R412 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R413 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R414 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R415 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R416 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R417 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R418 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R419 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R420 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R421 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R422 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R423 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R424 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R425 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R426 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R427 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R428 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R429 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R430 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R431 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R432 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R433 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R434 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R435 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R436 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R437 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R438 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R439 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R440 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R443 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R444 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R445 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R446 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R451 | 1-218-720-11 | METAL CHIP | 15K | 0.50% | 1/16W |
| R452 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R453 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R454 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R455 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R456 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R457 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R458 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R459 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R460 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R461 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W |
| R462 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W |
| R463 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W |
| R465 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R467 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R471 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R472 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R473 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R474 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R475 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R476 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R477 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R478 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R479 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R481 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R482 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R484 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R486 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R487 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R488 | 1-218-720-11 | METAL CHIP | 15K | 0.50% | 1/16W |
| R491 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |

# DV-19

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R492 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R493 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R497 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R499 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R501 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R502 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R503 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R504 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R505 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R506 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R507 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W |
| R508 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R509 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R510 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R511 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R512 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R513 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R514 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R515 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R516 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R517 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R518 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R519 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R520 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R521 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R522 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R523 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R525 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R527 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R528 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R529 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R530 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R531 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R532 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R533 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R534 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R535 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R536 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R537 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R538 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R539 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R540 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R541 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R542 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R543 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R545 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R547 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R549 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R551 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R553 | 1-218-699-11 | METAL CHIP | 2K | 0.50% | 1/16W |
| R554 | 1-218-699-11 | METAL CHIP | 2K | 0.50% | 1/16W |
| R555 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R556 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R557 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R558 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R559 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R560 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R561 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R562 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R563 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R564 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R565 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R566 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R567 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R568 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R570 | 1-216-838-11 | METAL CHIP | 27K | 5% | 1/16W |
| R571 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R572 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R573 | 1-218-699-11 | METAL CHIP | 2K | 0.50% | 1/16W |
| R574 | 1-218-699-11 | METAL CHIP | 2K | 0.50% | 1/16W |
| R575 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R576 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R578 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R580 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R581 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R582 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R583 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R584 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R585 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R586 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R587 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R588 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R589 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R590 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R591 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R592 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R593 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R594 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R595 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R596 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R597 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R598 | 1-216-837-11 | METAL CHIP | 22K | 5% | 1/16W |
| R599 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R600 | 1-216-835-11 | METAL CHIP | 15K | 5% | 1/16W |
| R601 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R602 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R603 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R605 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R606 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R607 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R608 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R610 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R611 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R612 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R613 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R614 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R615 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R616 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R617 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R618 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R619 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R620 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R621 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R622 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R623 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R624 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R625 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R626 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R627 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R628 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R629 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R630 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R631 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R632 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R633 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R634 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R635 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R636 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R637 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R638 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R639 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R640 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R641 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R642 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R643 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R644 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R645 | 1-218-697-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R646 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R647 | 1-218-697-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R648 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R649 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R650 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R651 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R652 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R653 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R654 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R655 | 1-218-840-11 | METAL CHIP | 510 | 0.50% | 1/16W |
| R656 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R657 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R658 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R659 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R660 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R661 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R662 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R663 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R664 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R665 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R666 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R667 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R668 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R669 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R670 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R671 | 1-218-724-11 | METAL CHIP | 22K | 0.50% | 1/16W |
| R672 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R673 | 1-218-724-11 | METAL CHIP | 22K | 0.50% | 1/16W |
| R674 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R675 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R676 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R677 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R678 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R679 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R680 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R681 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R682 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R683 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R684 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R685 | 1-218-724-11 | METAL CHIP | 22K | 0.50% | 1/16W |
| R686 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R687 | 1-218-724-11 | METAL CHIP | 22K | 0.50% | 1/16W |
| R688 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R689 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R690 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R691 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R692 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R693 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R694 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R695 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R696 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R697 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R698 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R699 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R701 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R702 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R703 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R704 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R705 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R706 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R707 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R708 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R709 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R710 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R711 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R712 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R713 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R714 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R715 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R716 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R717 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R725 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R726 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R732 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R733 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R735 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R736 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R737 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R739 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R740 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R741 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R743 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R751 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R752 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R753 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R754 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R755 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R756 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R757 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R762 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R763 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R768 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R769 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R801 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R802 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R803 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R804 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R805 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R806 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R807 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R808 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R809 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R810 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R811 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R812 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R813 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R814 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R815 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R816 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R817 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R818 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R819 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R820 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R821 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R822 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R823 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R824 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R825 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R826 | 1-218-697-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R827 | 1-218-697-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R828 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R829 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R830 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R831 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R832 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R833 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R834 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R835 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R836 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R837 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R838 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R839 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R840 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R841 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R842 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R843 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R844 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R845 | 1-216-841-11 | METAL CHIP | 47K | 5% | 1/16W |
| R846 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R847 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R848 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R849 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R850 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R851 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R852 | 1-218-697-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R853 | 1-218-697-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R854 | 1-218-699-11 | METAL CHIP | 2K | 0.50% | 1/16W |
| R855 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R856 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R857 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R858 | 1-218-706-11 | METAL CHIP | 3.9K | 0.50% | 1/16W |
| R859 | 1-218-697-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R860 | 1-218-697-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R861 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R862 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R863 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R864 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R865 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R866 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R867 | 1-216-819-11 | METAL CHIP | 680 | 5% | 1/16W |
| R868 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R869 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R870 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R871 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R872 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R873 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R874 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R875 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R876 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R877 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R878 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R879 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R880 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R881 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R882 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R883 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R884 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R885 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R886 | 1-216-819-11 | METAL CHIP | 680 | 5% | 1/16W |
| R887 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R888 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R889 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R890 | 1-216-816-11 | METAL CHIP | 390 | 5% | 1/16W |
| R891 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R892 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R893 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R894 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R895 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R896 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R897 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R898 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R899 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R901 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R902 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R903 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R904 | 1-216-803-11 | METAL CHIP | 33 | 5% | 1/16W |
| R905 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R906 | 1-216-816-11 | METAL CHIP | 390 | 5% | 1/16W |
| R907 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R908 | 1-218-845-11 | METAL CHIP | 820 | 0.50% | 1/16W |
| R909 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R910 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R911 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R912 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R913 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R914 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R915 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R916 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R917 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R918 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R919 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R920 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R921 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R922 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R923 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R924 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R925 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R926 | 1-218-672-11 | METAL CHIP | 150 | 0.50% | 1/16W |
| R927 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R928 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R929 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R930 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R931 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R932 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R933 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R934 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R935 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R936 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R938 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R939 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R941 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R942 | 1-218-716-11 | METAL CHIP | 10K | 0.50% | 1/16W |
| R943 | 1-218-710-11 | METAL CHIP | 5.6K | 0.50% | 1/16W |
| R944 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R950 | 1-218-717-11 | METAL CHIP | 11K | | 1/16W |
| R951 | 1-216-839-11 | METAL CHIP | 33K | | 1/16W |
| R954 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R955 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R956 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R957 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R958 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R960 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R961 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R962 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R963 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R964 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R965 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R966 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R967 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R968 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R969 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R970 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R971 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R972 | 1-216-823-11 | METAL CHIP | 1.5K | 5% | 1/16W |
| R973 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R974 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R975 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R976 | 1-218-692-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R977 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R978 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R979 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R980 | 1-216-822-11 | METAL CHIP | 1.2K | 5% | 1/16W |
| R981 | 1-216-822-11 | METAL CHIP | 1.2K | 5% | 1/16W |
| R982 | 1-216-823-11 | METAL CHIP | 1.5K | 5% | 1/16W |
| R983 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R984 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R986 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R988 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R995 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| | | < VIBRATOR > | | | |
| X201 | 1-579-780-21 | VIBRATOR, CRYSTAL | | | |
| X501 | 1-760-193-11 | VIBRATOR, CRYSTAL 14.1875 MHz | | | |
| X502 | 1-579-780-21 | VIBRATOR, CRYSTAL 17.734 MHz | | | |
| X503 | 1-577-101-11 | VIBRATOR, CERAMIC | | | |
| X504 | 1-579-780-21 | VIBRATOR, CRYSTAL 17.734 MHz | | | |
| X505 | 1-579-070-41 | VIBRATOR, CRYSTAL 16 MHz | | | |
| ********** | | | | | |
| * | A-7066-122-A | ED-41 BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | (Ref. No. 2,000 Seriese) | | | |
| | | < CONNECTOR > | | | |
| CN260 | 1-565-388-21 | CONNECTOR, D-SUB 9P (ENL IN/OUT) | | | |
| | | < DIODE > | | | |
| D851 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D852 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D853 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D854 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D855 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D856 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D857 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D858 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D859 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D860 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D861 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D862 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D863 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| D864 | 8-719-107-15 | DIODE RD18M-B2 | | | |
| | | < FERRITE BEAD > | | | |
| FB260 | 1-543-775-11 | FILTER, EMI | | | |
| FB261 | 1-543-775-11 | FILTER, EMI | | | |
| FB262 | 1-543-775-11 | FILTER, EMI | | | |
| FB263 | 1-543-775-11 | FILTER, EMI | | | |
| FB264 | 1-543-775-11 | FILTER, EMI | | | |
| FB265 | 1-543-775-11 | FILTER, EMI | | | |
| FB266 | 1-543-775-11 | FILTER, EMI | | | |
| ********** | | | | | |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| * | A-7066-120-A | FU-123 BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | (Ref. No. 3,000 Seriese) | | | |
| | | < CAPACITOR > | | | |
| C601 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C602 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C603 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C604 | 1-126-603-11 | ELECT CHIP | 4.7uF | 20% | 35V |
| C605 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C606 | 1-126-103-11 | ELECT | 470uF | 20% | 16V |
| | | < CONNECTOR > | | | |
| * CN601 | 1-560-893-00 | PIN, CONNECTOR 5P | | | |
| * CN602 | 1-560-896-00 | PIN, CONNECTOR 8P | | | |
| CN603 | 1-506-473-11 | PIN, CONNECTOR 8P | | | |
| CN604 | 1-506-468-11 | PIN, CONNECTOR 3P | | | |
| * CN605 | 1-564-007-11 | PIN, CONNECTOR 8P | | | |
| CN606 | 1-506-471-11 | PIN, CONNECTOR 6P | | | |
| CN607 | 1-506-471-11 | PIN, CONNECTOR 6P | | | |
| CN608 | 1-506-471-11 | PIN, CONNECTOR 6P | | | |
| CN609 | 1-506-469-11 | PIN, CONNECTOR 4P | | | |
| | | < IC > | | | |
| IC601 | 8-759-604-39 | IC AN6291 (+12V REG) | | | |
| | | < COIL > | | | |
| L601 | 1-410-678-31 | INDUCTOR 220uH | | | |
| L602 | 1-410-678-31 | INDUCTOR 220uH | | | |
| | | < IC LINK > | | | |
| ⚠PS601 | 1-532-685-21 | LINK, IC | | | |
| ⚠PS602 | 1-532-685-21 | LINK, IC | | | |
| ⚠PS603 | 1-532-727-11 | LINK, IC 0.25A | | | |
| ⚠PS604 | 1-532-605-21 | LINK, IC | | | |
| ⚠PS605 | 1-532-675-00 | LINK, IC 1.5A | | | |
| ⚠PS606 | 1-532-675-00 | LINK, IC 1.5A | | | |
| ⚠PS607 | 1-532-637-21 | LINK, IC | | | |
| ⚠PS608 | 1-532-605-21 | LINK, IC | | | |
| ⚠PS609 | 1-532-675-00 | LINK, IC 1.5A | | | |
| ⚠PS610 | 1-532-675-00 | LINK, IC 1.5A | | | |
| ⚠PS611 | 1-532-675-00 | LINK, IC 1.5A | | | |
| ⚠PS612 | 1-532-675-00 | LINK, IC 1.5A | | | |
| ⚠PS613 | 1-532-675-00 | LINK, IC 1.5A | | | |
| ********** | | | | | |



**Note:** The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| * | A-7066-118-A | JS-25 BOARD, COMPLETE | |
| | | ********** | |
| | | | (Ref. No. 3,000 Seriese) |
| | 1-751-567-11 | CABLE, FLAT (FJS-1) | |
| | 3-956-977-01 | STICK, JOY | |
| * | 3-956-995-01 | COVER, STICK | |
| * | 3-957-732-01 | HOLDER, JS LED | |
| | | < CAPACITOR > | |
| C701 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C702 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C703 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C704 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C705 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C706 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C707 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C708 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C801 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C802 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C803 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C804 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C805 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C806 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C807 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C808 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| C809 | 1-163-031-11 | CERAMIC CHIP 0.01uF | 50V |
| | | < CONNECTOR > | |
| * CN801 | 1-569-035-11 | CONNECTOR, FPC (ZIF) 30P | |
| | | < DIODE > | |
| D801 | 8-719-800-55 | LED TLS123 (SOFT) | |
| D803 | 8-719-800-55 | LED TLS123 (CHROMAKEY/LUMINA KEY) | |
| D804 | 8-719-800-55 | LED TLS123 (BORDER) | |
| D807 | 8-719-800-55 | LED TLS123 (OFF) | |
| D809 | 8-719-800-55 | LED TLS123 (POSITION) | |
| D810 | 8-719-800-55 | LED TLS123 (COLOR CORRECTION) | |
| | | < IC > | |
| IC701 | 8-759-011-65 | IC MC74HC4053F (SWITCHER) | |
| IC801 | 8-759-011-65 | IC MC74HC4053F (SWITCHER) | |
| | | < SWITCH > | |
| LS801 | 1-692-518-11 | SWITCH, TACTIL (LS22BB-2SD/SD-T) | (A-BUS) |
| LS802 | 1-692-518-11 | SWITCH, TACTIL (LS22BB-2SD/SD-T) | (B-BUS) |
| LS803 | 1-692-518-11 | SWITCH, TACTIL (LS22BB-2SD/SD-T) | (MEMORY RECALL) |
| LS804 | 1-692-518-11 | SWITCH, TACTIL (LS22BB-2SD/SD-T) | (ON/OFF) |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| | | < VARIABLE RESISTOR > | |
| RV701 | 1-241-010-11 | RES, VAR, CARBON 10K (A-BUS HUE) | |
| RV702 | 1-241-010-11 | RES, VAR, CARBON 10K (A-BUS LUMINANCE) | |
| RV703 | 1-241-010-11 | RES, VAR, CARBON 10K (A-BUS CHROMINANCE) | |
| RV704 | 1-241-010-11 | RES, VAR, CARBON 10K (B-BUS HUE) | |
| RV705 | 1-241-010-11 | RES, VAR, CARBON 10K (B-BUS LUMINANCE) | |
| RV706 | 1-241-010-11 | RES, VAR, CARBON 10K (B-BUS CHROMINANCE) | |
| RV801 | 1-241-010-11 | RES, VAR, CARBON 10K (CLIP/CLIP HIGH) | |
| RV802 | 1-241-010-11 | RES, VAR, CARBON 10K (HUE) | |
| RV803 | 1-241-010-11 | RES, VAR, CARBON 10K (GAIN/CLIP LOW) | |
| RV804 | 1-237-423-21 | RES, VAR, CARBON 1K/1K (COLOR CORRECTION) | |
| RV805 | 1-237-423-21 | RES, VAR, CARBON 1K/1K (POSITION) | |
| | | < SWITCH > | |
| S801 | 1-571-787-11 | SWITCH, TACTILE (STORE) | |
| S802 | 1-571-787-11 | SWITCH, TACTILE (PATTERN EDGE) | |
| S803 | 1-571-787-11 | SWITCH, TACTILE ( ▼ ) | |
| S804 | 1-571-787-11 | SWITCH, TACTILE ( ▲ ) | |
| ********** | | | |
| * | A-7063-837-A | KS-15 BOARD, COMPLETE | |
| | | ********** | |
| | | | (Ref. No. 3,000 Seriese) |
| | 3-956-994-01 | SHEET, INDICATION (P1) | |
| | 3-956-994-11 | SHEET, INDICATION (P2) | |
| | 3-956-994-21 | SHEET, INDICATION (AUX) | |
| | 3-956-994-31 | SHEET, INDICATION (BKGD) | |
| | | < BUZZER > | |
| BZ100 | 1-529-070-11 | BUZZER | |
| | | < CAPACITOR > | |
| C100 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C101 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C102 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C103 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C104 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C105 | 1-163-235-11 | CERAMIC CHIP 22PF 5% | 50V |
| C106 | 1-163-235-11 | CERAMIC CHIP 22PF 5% | 50V |
| C107 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C108 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C109 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C110 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C111 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C112 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C113 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C114 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C115 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C116 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C117 | 1-124-779-00 | ELECT CHIP 10uF 20% | 16V |
| C118 | 1-165-319-11 | CERAMIC CHIP 0.1uF | 50V |
| C119 | 1-124-779-00 | ELECT CHIP 10uF 20% | 16V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C120 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C121 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C122 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C123 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C124 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C125 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C126 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C127 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C128 | 1-124-779-00 | ELECT CHIP | 10uF | 20% | 16V |
| C129 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C130 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C131 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C132 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C133 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C134 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C135 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C136 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C137 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C138 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C139 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C140 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C141 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C142 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C143 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C144 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |

< CONNECTOR >

| | | | |
|---|---|---|---|
| * | CN100 | 1-569-035-11 | CONNECTOR, FPC (ZIF) 30P |
| | CN101 | 1-580-723-11 | CONNECTOR, BOARD TO BOARD 28P |
| | CN102 | 1-580-723-11 | CONNECTOR, BOARD TO BOARD 28P |
| | CN103 | 1-566-535-11 | CONNECTOR, FPC (ZIF) 19P |
| * | CN104 | 1-564-013-11 | PIN, CONNECTOR 3P |
| | CN105 | 1-506-485-11 | PIN, CONNECTOR 6P |
| * | CN106 | 1-565-211-11 | CONNECTOR, FPC (ZIF) 22P |

< DIODE >

| | | | |
|---|---|---|---|
| D100 | 8-719-104-34 | DIODE | 1S2836 |
| D101 | 8-719-104-34 | DIODE | 1S2836 |
| D102 | 8-719-104-34 | DIODE | 1S2836 |
| D103 | 8-719-104-34 | DIODE | 1S2836 |
| D104 | 8-719-104-34 | DIODE | 1S2836 |
| D105 | 8-719-104-34 | DIODE | 1S2836 |
| D106 | 8-719-104-34 | DIODE | 1S2836 |
| D107 | 8-719-104-34 | DIODE | 1S2836 |
| D108 | 8-719-029-43 | DIODE | CL-140SD-CD-T (9) |
| D109 | 8-719-029-43 | DIODE | CL-140SD-CD-T (+) |
| D140 | 8-719-913-53 | LED | LA-301VL (TRANSRATE 8) |
| D141 | 8-719-913-53 | LED | LA-301VL (TRANSRATE 8) |
| D142 | 8-719-913-53 | LED | LA-301VL (TRANSRATE 8) |
| D143 | 8-719-029-43 | DIODE | CL-140SD-CD-T (AUDIO FOLLOW) |
| D144 | 8-719-029-43 | DIODE | CL-140SD-CD-T (COLOR BACKGROUND) |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| D147 | 8-719-029-43 | DIODE | CL-140SD-CD-T (VIDEO) |
| D148 | 8-719-029-43 | DIODE | CL-140SD-CD-T (VIDEO) |
| D149 | 8-719-029-43 | DIODE | CL-140SD-CD-T (AUDIO) |
| D150 | 8-719-029-43 | DIODE | CL-140SD-CD-T (AUDIO) |
| D151 | 8-719-029-43 | DIODE | CL-140SD-CD-T (FADE) |
| D152 | 8-719-029-43 | DIODE | CL-140SD-CD-T (FADE) |
| D153 | 8-719-029-43 | DIODE | CL-140SD-CD-T (AUTO TRANS/PAUSE) |
| D154 | 8-719-029-43 | DIODE | CL-140SD-CD-T (EFFECT TRANSITION) |
| D155 | 8-719-029-43 | DIODE | CL-140SD-CD-T (EFFECT TRANSITION) |
| D156 | 8-719-029-43 | DIODE | CL-140SD-CD-T (EFFECT TRANSITION) |
| D157 | 8-719-029-43 | DIODE | CL-140SD-CD-T (EFFECT TRANSITION) |
| D158 | 8-719-029-43 | DIODE | CL-140SD-CD-T (EFFECT TRANSITION) |
| D159 | 8-719-029-43 | DIODE | CL-140SD-CD-T (EFFECT TRANSITION) |
| D160 | 8-719-029-43 | DIODE | CL-140SD-CD-T (EFFECT TRANSITION) |
| D161 | 8-719-029-43 | DIODE | CL-140SD-CD-T (EFFECT TRANSITION) |
| D162 | 8-719-029-43 | DIODE | CL-140SD-CD-T (EFFECT TRANSITION) |
| D163 | 8-719-029-43 | DIODE | CL-140SD-CD-T (EFFECT TRANSITION) |
| D164 | 8-719-104-34 | DIODE | 1S2836 |
| D165 | 8-719-104-34 | DIODE | 1S2836 |
| D166 | 8-719-104-34 | DIODE | 1S2836 |
| D167 | 8-719-104-34 | DIODE | 1S2836 |
| D168 | 8-719-104-34 | DIODE | 1S2836 |
| D169 | 8-719-104-34 | DIODE | 1S2836 |
| D170 | 8-719-104-34 | DIODE | 1S2836 |
| D171 | 8-719-104-34 | DIODE | 1S2836 |
| D172 | 8-719-029-43 | DIODE | CL-140SD-CD-T (7) |
| D173 | 8-719-029-43 | DIODE | CL-140SD-CD-T (8) |
| D174 | 8-719-029-43 | DIODE | CL-140SD-CD-T (4) |
| D175 | 8-719-029-43 | DIODE | CL-140SD-CD-T (5) |
| D176 | 8-719-029-43 | DIODE | CL-140SD-CD-T (6) |
| D177 | 8-719-029-43 | DIODE | CL-140SD-CD-T (-) |
| D178 | 8-719-029-43 | DIODE | CL-140SD-CD-T (1) |
| D179 | 8-719-029-43 | DIODE | CL-140SD-CD-T (2) |
| D180 | 8-719-029-43 | DIODE | CL-140SD-CD-T (3) |
| D181 | 8-719-029-43 | DIODE | CL-140SD-CD-T (CLR) |
| D182 | 8-719-029-43 | DIODE | CL-140SD-CD-T (0) |
| D183 | 8-719-029-43 | DIODE | CL-140SD-CD-T (00) |
| D184 | 8-719-029-43 | DIODE | CL-140SD-CD-T (BS) |
| D185 | 8-719-029-43 | DIODE | CL-140SD-CD-T (ENT) |
| D188 | 8-719-029-43 | DIODE | CL-140SD-CD-T (NORMAL MIX) |
| D189 | 8-719-029-43 | DIODE | CL-140SD-CD-T (LUMINA CLIP TRANS) |
| D190 | 8-719-029-43 | DIODE | CL-140SD-CD-T (MOSAIK MIX) |
| D191 | 8-719-029-43 | DIODE | CL-140SD-CD-T (LUMINA KEY) |
| D192 | 8-719-029-43 | DIODE | CL-140SD-CD-T (POSTRZ MIX) |
| D193 | 8-719-029-43 | DIODE | CL-140SD-CD-T (CHROMA KEY) |
| D194 | 8-719-029-43 | DIODE | CL-140SD-CD-T (B & W MIX) |
| D195 | 8-719-029-43 | DIODE | CL-140SD-CD-T (P in P) |
| D196 | 8-719-029-43 | DIODE | CL-140SD-CD-T (▦) |
| D197 | 8-719-029-43 | DIODE | CL-140SD-CD-T (▩) |
| D198 | 8-719-029-43 | DIODE | CL-140SD-CD-T (▣) |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| D199 | 8-719-029-43 | DIODE CL-140SD-CD-T (USER 2) | |
| D200 | 8-719-029-43 | DIODE CL-140SD-CD-T ( ) | |
| D201 | 8-719-029-43 | DIODE CL-140SD-CD-T ( ) | |
| D202 | 8-719-029-43 | DIODE CL-140SD-CD-T ( ) | |
| D203 | 8-719-029-43 | DIODE CL-140SD-CD-T (USER 1) | |
| D204 | 8-719-029-43 | DIODE CL-140SD-CD-T ( ) | |
| D205 | 8-719-029-43 | DIODE CL-140SD-CD-T ( ) | |
| D206 | 8-719-029-43 | DIODE CL-140SD-CD-T ( ) | |
| D207 | 8-719-029-43 | DIODE CL-140SD-CD-T (SCROLL) | |
| D208 | 8-719-029-43 | DIODE CL-140SD-CD-T ( ) | |
| D209 | 8-719-029-43 | DIODE CL-140SD-CD-T ( ) | |
| D210 | 8-719-029-43 | DIODE CL-140SD-CD-T ( ) | |
| D211 | 8-719-029-43 | DIODE CL-140SD-CD-T (SIDE OUT) | |
| D212 | 8-719-029-43 | DIODE CL-140SD-CD-T ( ) | |
| D213 | 8-719-029-43 | DIODE CL-140SD-CD-T ( ) | |
| D214 | 8-719-029-43 | DIODE CL-140SD-CD-T (SPLIT SLIDE) | |
| D215 | 8-719-029-43 | DIODE CL-140SD-CD-T (SLIDE IN) | |
| | | < IC > | |
| IC100 | 8-759-011-65 | IC MC74HC4053F (SELECT SWITCH) | |
| IC101 | 8-759-927-29 | IC SN74HCU04ANS (OSC) | |
| IC102 | 8-759-234-67 | IC TMP82C79M-2 (KEY/LED CONTROLLER) | |
| IC103 | 8-759-234-67 | IC TMP82C79M-2 (KEY/LED CONTROLLER) | |
| IC104 | 8-759-926-42 | IC SN74HC238ANS (DECODER) | |
| IC105 | 8-759-926-11 | IC SN74HC138ANS (DECODER) | |
| IC106 | 8-759-926-42 | IC SN74HC238ANS (DECODER) | |
| IC107 | 8-759-926-11 | IC SN74HC138ANS (DECODER) | |
| IC108 | 8-759-051-53 | IC TD62381F (INVDRIVER) | |
| IC109 | 8-759-051-53 | IC TD62381F (INVDRIVER) | |
| IC110 | 8-759-051-53 | IC TD62381F (INVDRIVER) | |
| IC111 | 8-759-051-53 | IC TD62381F (INVDRIVER) | |
| IC112 | 8-759-051-53 | IC TD62381F (INVDRIVER) | |
| IC113 | 8-759-063-30 | IC MC74HC374AF (DATA BUS LATCH) | |
| IC114 | 8-759-063-30 | IC MC74HC374AF (DATA BUS LATCH) | |
| IC115 | 8-759-032-20 | IC MC74HC32AF (CHIP SELECT) | |
| | | < COIL > | |
| L100 | 1-410-381-11 | INDUCTOR CHIP 10uH | |
| L101 | 1-410-381-11 | INDUCTOR CHIP 10uH | |
| | | < SWITCH > | |
| LS100 | 1-692-518-11 | SWITCH, TACTIL(LS22BB-2SD/SD-T) | (WHITE FADE) |
| LS101 | 1-692-518-11 | SWITCH, TACTIL(LS22BB-2SD/SD-T) | (LEVER PAUSE) |
| LS102 | 1-692-518-11 | SWITCH, TACTIL(LS22BB-2SD/SD-T) | (BLACK FADE) |
| LS103 | 1-692-518-11 | SWITCH, TACTIL(LS22BB-2SD/SD-T) | (REVERSE) |
| LS104 | 1-692-518-11 | SWITCH, TACTIL(LS22BB-2SD/SD-T) | (CUT) |
| LS105 | 1-692-518-11 | SWITCH, TACTIL(LS22BB-2SD/SD-T) | (A-BUS INPUT EFFECT) |
| LS106 | 1-692-518-11 | SWITCH, TACTIL(LS22BB-2SD/SD-T) | (B-BUS INPUT EFFECT) |
| LS107 | 1-692-720-11 | SWITCH, PUSH (LED) | (A-BUS P1) |
| LS108 | 1-692-720-11 | SWITCH, PUSH (LED) | (A-BUS P2) |
| LS109 | 1-692-720-11 | SWITCH, PUSH (LED) | (A-BUS AUX) |
| LS110 | 1-692-720-11 | SWITCH, PUSH (LED) | (A-BUS BKGD) |
| LS111 | 1-692-720-11 | SWITCH, PUSH (LED) | (B-BUS P1) |
| LS112 | 1-692-720-11 | SWITCH, PUSH (LED) | (B-BUS P2) |
| LS113 | 1-692-720-11 | SWITCH, PUSH (LED) | (B-BUS AUX) |
| LS114 | 1-692-720-11 | SWITCH, PUSH (LED) | (B-BUS BKGD) |
| | | < TRANSISTOR > | |
| Q100 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| Q103 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q105 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q106 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q107 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q108 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q109 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q110 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q111 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q112 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q113 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q114 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q115 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q116 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q117 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q118 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q119 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| | | < RESISTOR > | |
| R102 | 1-216-121-00 | METAL CHIP 1M 5% 1/10W | |
| R103 | 1-216-295-91 | METAL GLAZE 0 5% 1/10W | |
| R104 | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W | |
| R105 | 1-216-164-00 | METAL GLAZE 39 5% 1/8W | |
| R106 | 1-216-164-00 | METAL GLAZE 39 5% 1/8W | |
| R107 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R108 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R109 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R110 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R111 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R112 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R113 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R114 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R116 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R117 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R118 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R119 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R120 | 1-216-164-00 | METAL GLAZE 39 5% 1/8W | |
| R121 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R122 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R123 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W |
| R124 | 1-216-089-91 | METAL GLAZE | 47K | 5% | 1/10W |
| R125 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R126 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R127 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R128 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R129 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R130 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R131 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R132 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R133 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R134 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R135 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R136 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R137 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R138 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R139 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R140 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R141 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R142 | 1-216-164-00 | METAL GLAZE | 39 | 5% | 1/8W |
| R143 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R145 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R146 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R147 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R148 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R149 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R150 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R151 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R152 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R153 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R154 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R155 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R156 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R157 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R158 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R159 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R160 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R161 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R162 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R163 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R164 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R165 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R166 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R167 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R168 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R169 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R170 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R171 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R172 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R173 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R174 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R175 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R176 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R177 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R178 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R179 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R180 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R181 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R182 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R183 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R184 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R185 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R186 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R187 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R188 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R189 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R190 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R191 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R192 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R193 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R202 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R210 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R212 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R213 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R214 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R215 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R216 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R217 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R218 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R219 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R220 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R221 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R223 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R224 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R225 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R226 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R227 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R228 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |
| R229 | 1-216-295-91 | METAL GLAZE | 0 | 5% | 1/10W |

< SWITCH >

| | | |
|---|---|---|
| S100 | 1-571-787-11 | SWITCH, TACTILE (7) |
| S101 | 1-571-787-11 | SWITCH, TACTILE (8) |
| S102 | 1-571-787-11 | SWITCH, TACTILE (9) |
| S103 | 1-571-787-11 | SWITCH, TACTILE (+) |
| S104 | 1-571-787-11 | SWITCH, TACTILE (4) |
| S105 | 1-571-787-11 | SWITCH, TACTILE (5) |
| S106 | 1-571-787-11 | SWITCH, TACTILE (6) |
| S107 | 1-571-787-11 | SWITCH, TACTILE (-) |
| S108 | 1-571-787-11 | SWITCH, TACTILE (1) |
| S109 | 1-571-787-11 | SWITCH, TACTILE (2) |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| S110 | 1-571-787-11 | SWITCH, TACTILE (3) | |
| S111 | 1-571-787-11 | SWITCH, TACTILE (CLR) | |
| S112 | 1-571-787-11 | SWITCH, TACTILE (0) | |
| S113 | 1-571-787-11 | SWITCH, TACTILE (00) | |
| S114 | 1-571-787-11 | SWITCH, TACTILE (BS) | |
| S115 | 1-571-787-11 | SWITCH, TACTILE (ENT) | |
| S116 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S117 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S118 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S119 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S120 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S121 | 1-571-787-11 | SWITCH, TACTILE (NORMAL MIX) | |
| S122 | 1-571-787-11 | SWITCH, TACTILE (LUMINA CLIP TRANS) | |
| S123 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S124 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S125 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S126 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S127 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S128 | 1-571-787-11 | SWITCH, TACTILE (MOSAIK MIX) | |
| S129 | 1-571-787-11 | SWITCH, TACTILE (LUMINA KEY) | |
| S130 | 1-571-787-11 | SWITCH, TACTILE (SPLIT SLIDE) | |
| S131 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S132 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S133 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S134 | 1-571-787-11 | SWITCH, TACTILE ( ) | |
| S135 | 1-571-787-11 | SWITCH, TACTILE (POSTRZ MIX) | |
| S136 | 1-571-787-11 | SWITCH, TACTILE (CHROMA KEY) | |
| S137 | 1-571-787-11 | SWITCH, TACTILE (SLIDE A) | |
| S138 | 1-571-787-11 | SWITCH, TACTILE (SLIDE OUT) | |
| S139 | 1-571-787-11 | SWITCH, TACTILE (SCROLL) | |
| S140 | 1-571-787-11 | SWITCH, TACTILE (USER 1) | |
| S141 | 1-571-787-11 | SWITCH, TACTILE (USER 2) | |
| S142 | 1-571-787-11 | SWITCH, TACTILE (B & W MIX) | |
| S143 | 1-571-787-11 | SWITCH, TACTILE (P in P) | |
| S144 | 1-571-787-11 | SWITCH, TACTILE (VIDEO/AUDIO/FADE) | |
| S145 | 1-571-787-11 | SWITCH, TACTILE (TRANSRATE) | |
| S146 | 1-571-787-11 | SWITCH, TACTILE (TRANSRATE) | |
| S147 | 1-571-787-11 | SWITCH, TACTILE (TRANSRATE) | |
| S148 | 1-571-787-11 | SWITCH, TACTILE (AUTO TARNS/PAUSE) | |
| S149 | 1-571-787-11 | SWITCH, TACTILE (AUDIO FOLLOW) | |
| S150 | 1-571-787-11 | SWITCH, TACTILE ( ▼ ) | |
| S151 | 1-571-787-11 | SWITCH, TACTILE ( ▲ ) | |
| | | < VIBRATOR > | |
| X100 | 1-577-213-11 | VIBRATOR, CRYSTAL 2MHz | |

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| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| * | 1-649-632-11 | KY-22 BOARD | | | |
| | | ********** | | | |
| | | (Ref. No. 8,000 Series) | | | |
| | | < CAPACITOR > | | | |
| C100 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C101 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C102 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C103 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C104 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C105 | 1-163-235-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C106 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C107 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C108 | 1-163-257-11 | CERAMIC CHIP | 180PF | 5% | 50V |
| C109 | 1-163-257-11 | CERAMIC CHIP | 180PF | 5% | 50V |
| C110 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C111 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C112 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C113 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C114 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C115 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C116 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C117 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C118 | 1-165-319-11 | CERAMIC CHIP | 0.1uF | | 50V |
| C119 | 1-124-443-00 | ELECT | 100uF | 20% | 6.3V |
| C120 | 1-124-443-00 | ELECT | 100uF | 20% | 6.3V |
| C121 | 1-163-257-11 | CERAMIC CHIP | 180PF | 5% | 50V |
| C122 | 1-163-257-11 | CERAMIC CHIP | 180PF | 5% | 50V |
| C123 | 1-163-243-11 | CERAMIC CHIP | 47PF | 5% | 50V |
| | | < CONNECTOR > | | | |
| CN100 | 1-566-535-11 | CONNECTOR, FPC (ZIF) 19P | | | |
| CN101 | 1-564-014-11 | PIN, CONNECTOR 4P | | | |
| CN102 | 1-504-485-11 | PIN, CONNECTOR 6P | | | |
| CN103 | 1-565-211-11 | CONNECTOR, FPC (ZIF) 22P | | | |
| | | < DIODE > | | | |
| D100 | 8-719-974-44 | DIODE PG4553KY (PLAY) | | | |
| D101 | 8-719-946-52 | DIODE GL8EG22 ( ◀ ) | | | |
| D102 | 8-719-946-52 | DIODE GL8EG22 ( ▶ ) | | | |
| D103 | 8-719-029-43 | DIODE CL-140SD-CD-T (PREVIEW) | | | |
| D104 | 8-719-939-09 | DIODE AA4553K (IN) | | | |
| D105 | 8-719-939-09 | DIODE AA4553K (CUT EDIT) | | | |
| D107 | 8-719-939-09 | DIODE AA4553K (A-ROLL) | | | |
| D108 | 8-719-104-34 | DIODE 1S2835 | | | |
| D109 | 8-719-028-06 | DIODE CL-140UR-CD (AUTO ASM) | | | |
| D110 | 8-719-939-09 | DIODE AA4553K (OUT) | | | |
| D111 | 8-719-939-09 | DIODE AA4553K (ASMBL) | | | |
| D112 | 8-719-939-09 | DIODE AA4553K (MIX) | | | |
| D113 | 8-719-939-09 | DIODE AA4553K (SOURCE) | | | |
| D114 | 8-719-104-34 | DIODE 1S2835 | | | |
| D115 | 8-719-974-43 | DIODE BR4553K (AUTO EDIT/END) | | | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| D116 | 8-719-939-09 | DIODE AA4553K (DUR) | |
| D117 | 8-719-939-09 | DIODE AA4553K (V) | |
| D118 | 8-719-939-09 | DIODE AA4553K (WIPE) | |
| D119 | 8-719-939-09 | DIODE AA4553K (PGM) | |
| D120 | 8-719-939-09 | DIODE AA4553K (REW) | |
| D121 | 8-719-974-43 | DIODE BR4553K (REC) | |
| D122 | 8-719-939-09 | DIODE AA4553K (P1) | |
| D123 | 8-719-104-34 | DIODE 1S2835 | |
| D124 | 8-719-029-43 | DIODE CL-140SD-CD-T (SET-IN) | |
| D125 | 8-719-939-09 | DIODE AA4553K (GO TO) | |
| D126 | 8-719-939-09 | DIODE AA4553K (A1) | |
| D127 | 8-719-939-09 | DIODE AA4553K (MAN) | |
| D128 | 8-719-939-09 | DIODE AA4553K (A-BUS) | |
| D129 | 8-719-939-09 | DIODE AA4553K (FF) | |
| D130 | 8-719-939-09 | DIODE AA4553K (SPEED) | |
| D131 | 8-719-939-09 | DIODE AA4553K (P2) | |
| D132 | 8-719-104-34 | DIODE 1S2835 | |
| D133 | 8-719-104-34 | DIODE 1S2835 | |
| D134 | 8-719-029-43 | DIODE CL-140SD-CD-T (SET-OUT) | |
| D135 | 8-719-939-09 | DIODE AA4553K (CLEAR) | |
| D136 | 8-719-939-09 | DIODE AA4553K (A2) | |
| D137 | 8-719-029-43 | DIODE CL-140SD-CD-T | |
| D138 | 8-719-939-09 | DIODE AA4553K (B-BUS) | |
| D140 | 8-719-939-09 | DIODE AA4553K (DMC) | |
| D141 | 8-719-939-09 | DIODE AA4553K (R-VTR) | |
| D142 | 8-719-104-34 | DIODE 1S2835 | |
| D143 | 8-719-104-34 | DIODE 1S2835 | |
| D144 | 8-719-104-34 | DIODE 1S2835 | |
| D145 | 8-719-946-84 | DIODE GL8HS22 ( ■ ) | |
| D146 | 8-719-939-09 | DIODE AA4553K (STILL) | |
| D147 | 8-719-939-09 | DIODE AA4553K (AUX) | |
| D148 | 8-719-939-09 | DIODE AA4553K (AUDIO SPLIT) | |
| D149 | 8-719-939-09 | DIODE AA4553K (REVIEW) | |
| D150 | 8-719-939-09 | DIODE AA4553K (SET DUR) | |
| | | < IC > | |
| IC100 | 8-759-927-29 | IC SN74HCU04ANS (OSC) | |
| IC101 | 8-759-500-43 | IC CXD8117P (J/S ENCODER) | |
| IC102 | 8-759-234-67 | IC TMP82C79M-2 (KEY/LED CONTROLER) | |
| IC103 | 9-906-939-01 | IC TD62383P (DRIVER) | |
| IC104 | 8-759-926-11 | IC SN74HC138ANS (DECODER) | |
| | | < COIL > | |
| L100 | 1-410-381-11 | INDUCTOR 10uH | |
| | | < PUSH SWITCH > | |
| LS107 | 1-692-720-11 | SWITCH, PUSH (LED) | |
| LS108 | 1-692-720-11 | SWITCH, PUSH (LED) | |
| LS109 | 1-692-720-11 | SWITCH, PUSH (LED) | |
| LS110 | 1-692-720-11 | SWITCH, PUSH (LED) | |
| LS111 | 1-692-720-11 | SWITCH, PUSH (LED) | |
| LS112 | 1-692-720-11 | SWITCH, PUSH (LED) | |
| LS113 | 1-692-720-11 | SWITCH, PUSH (LED) | |
| LS114 | 1-692-720-11 | SWITCH, PUSH (LED) | |
| | | < TRANSISTOR > | |
| Q100 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q101 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q102 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q103 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q104 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q105 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q106 | 8-729-904-48 | TRANSISTOR DTB113EK | |
| Q107 | 8-729-901-04 | TRANSISTOR DTA114EK | |
| | | < RESISTOR > | |
| R100 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R101 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R102 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R103 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R104 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R105 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R106 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R107 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R109 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R110 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R111 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R112 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R113 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R114 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R115 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R116 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R117 | 1-216-295-11 | METAL CHIP 0 5% 1/10W | |
| R118 | 1-216-089-91 | METAL CHIP 47K 5% 1/10W | |
| R119 | 1-216-089-91 | METAL CHIP 47K 5% 1/10W | |
| R120 | 1-216-089-91 | METAL CHIP 47K 5% 1/10W | |
| R122 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R123 | 1-216-121-00 | METAL CHIP 1M 5% 1/10W | |
| R124 | 1-216-089-91 | METAL CHIP 47K 5% 1/10W | |
| R125 | 1-216-089-91 | METAL CHIP 47K 5% 1/10W | |
| R126 | 1-216-089-91 | METAL CHIP 47K 5% 1/10W | |
| R127 | 1-216-089-91 | METAL CHIP 47K 5% 1/10W | |
| R128 | 1-216-089-91 | METAL CHIP 47K 5% 1/10W | |
| R129 | 1-216-031-00 | METAL CHIP 180 5% 1/10W | |
| R130 | 1-216-031-00 | METAL CHIP 180 5% 1/10W | |
| R131 | 1-216-031-00 | METAL CHIP 180 5% 1/10W | |
| R132 | 1-216-031-00 | METAL CHIP 180 5% 1/10W | |
| R133 | 1-216-031-00 | METAL CHIP 180 5% 1/10W | |
| R134 | 1-216-031-00 | METAL CHIP 180 5% 1/10W | |
| R135 | 1-216-031-00 | METAL CHIP 180 5% 1/10W | |
| R136 | 1-216-031-00 | METAL CHIP 180 5% 1/10W | |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R137 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R138 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R139 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R140 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R141 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R142 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R143 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R144 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R145 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R146 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R147 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R148 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R149 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R150 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R151 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R152 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W |
| R153 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R154 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R155 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R156 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R157 | 1-216-081-00 | METAL CHIP | 22K | 5% | 1/10W |
| R158 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R159 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R160 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R161 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| | | < VIBRATOR > | | | |
| X100 | 1-577-213-11 | VIBRATOR, CRYSTAL | | | |
| ********** | | | | | |
| * | A-7066-123-A | MJ-65 BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | | | | (Ref. No. 3,000 Seriese) |
| | 3-684-465-01 | NUT, HEXAGON | | | |
| | | < CAPACITOR > | | | |
| C081 | 1-163-003-11 | CERAMIC CHIP | 330PF | 10% | 50V |
| C083 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C084 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C085 | 1-124-778-00 | ELECT CHIP | 22uF | 20% | 6.3V |
| C086 | 1-126-193-11 | ELECT | 1uF | 20% | 50V |
| C087 | 1-163-038-00 | CERAMIC CHIP | 0.1uF | | 25V |
| C088 | 1-163-009-11 | CERAMIC CHIP | 0.001uF | 10% | 50V |
| | | < DIODE > | | | |
| D081 | 8-719-801-78 | DIODE 1SS184 | | | |
| D082 | 8-719-801-78 | DIODE 1SS184 | | | |
| | | < IC > | | | |
| IC081 | 8-759-266-09 | IC NJM4562M(TE2) (MIC AMP) | | | |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| | | < JACK > | | | |
| J081 | 1-507-932-11 | JACK, LARGE TYPE (MIC) | | | |
| | | < TRANSISTOR > | | | |
| Q081 | 8-729-216-22 | TRANSISTOR 2SA1162-G | | | |
| Q082 | 8-729-202-38 | TRANSISTOR 2SC3326N-A | | | |
| Q083 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | | | |
| | | < RESISTOR > | | | |
| R081 | 1-216-067-00 | METAL CHIP | 5.6K | 5% | 1/10W |
| R082 | 1-216-042-00 | METAL CHIP | 510 | 5% | 1/10W |
| R083 | 1-216-053-00 | METAL CHIP | 1.5K | 5% | 1/10W |
| R084 | 1-216-080-00 | METAL CHIP | 20K | 5% | 1/10W |
| R085 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R087 | 1-216-109-00 | METAL CHIP | 330K | 5% | 1/10W |
| R088 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R089 | 1-216-079-00 | METAL CHIP | 18K | 5% | 1/10W |
| R090 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W |
| R091 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R092 | 1-216-069-00 | METAL CHIP | 6.8K | 5% | 1/10W |
| ********** | | | | | |
| * | A-7066-127-A | MM-27 (P) BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | | | | (Ref. No. 5,000 Seriese) |
| | | < CAPACITOR > | | | |
| C001 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C002 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C101 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C102 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C103 | 1-162-920-11 | CERAMIC CHIP | 27PF | 5% | 50V |
| C104 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C105 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C106 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C107 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C108 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C121 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C122 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C123 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C124 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C125 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C126 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C127 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C131 | 1-162-919-11 | CERAMIC CHIP | 22PF | 5% | 50V |
| C132 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C133 | 1-164-357-11 | CERAMIC CHIP | 1000PF | 5% | 50V |
| C134 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C135 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C136 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C137 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C138 | 1-126-193-11 | ELECT | 1uF | 20% | 50V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C139 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C140 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C141 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C142 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C143 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C144 | 1-162-968-11 | CERAMIC CHIP | 0.0047uF | 10% | 50V |
| C145 | 1-164-699-11 | CERAMIC CHIP | 0.0033uF | 5% | 50V |
| C146 | 1-126-602-11 | ELECT CHIP | 3.3uF | 20% | 50V |
| C147 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C148 | 1-164-237-11 | CERAMIC CHIP | 16PF | 5% | 50V |
| C151 | 1-164-357-11 | CERAMIC CHIP | 1000PF | 5% | 50V |
| C152 | 1-164-357-11 | CERAMIC CHIP | 1000PF | 5% | 50V |
| C153 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C154 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C155 | 1-164-357-11 | CERAMIC CHIP | 1000PF | 5% | 50V |
| C171 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C172 | 1-162-918-11 | CERAMIC CHIP | 18PF | 5% | 50V |
| C173 | 1-162-918-11 | CERAMIC CHIP | 18PF | 5% | 50V |
| C175 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C176 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C177 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C181 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C182 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C183 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C184 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C185 | 1-164-227-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C186 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C187 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C188 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C201 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C202 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C203 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C204 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C205 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C211 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C212 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C213 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C214 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C215 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C221 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C222 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C223 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C224 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C225 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C231 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C232 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C301 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C302 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C303 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C304 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C306 | 1-164-155-11 | CERAMIC CHIP | 75PF | 5% | 50V |
| C331 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C332 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C351 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C352 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C370 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | | 16V |
| C371 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C372 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C373 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C374 | 1-164-378-11 | CERAMIC CHIP | 30PF | 5% | 50V |
| C375 | 1-164-378-11 | CERAMIC CHIP | 30PF | 5% | 50V |
| C376 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C377 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C401 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C402 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C403 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C404 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C405 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C421 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C422 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C423 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C424 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C425 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C426 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C451 | 1-162-927-11 | CERAMIC CHIP | 100PF | 5% | 50V |
| C452 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C453 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C454 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C455 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C456 | 1-126-193-11 | ELECT | 1uF | 20% | 50V |
| C457 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C458 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C459 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C460 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C461 | 1-162-968-11 | CERAMIC CHIP | 0.0047uF | 10% | 50V |
| C462 | 1-164-699-11 | CERAMIC CHIP | 0.0033uF | 5% | 50V |
| C463 | 1-126-602-11 | ELECT CHIP | 3.3uF | 20% | 50V |
| C464 | 1-162-957-11 | CERAMIC CHIP | 220PF | 5% | 50V |
| C465 | 1-164-237-11 | CERAMIC CHIP | 16PF | 5% | 50V |
| C466 | 1-162-916-11 | CERAMIC CHIP | 12PF | 5% | 50V |
| C467 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C471 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C472 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |

< CONNECTOR >

| | | |
|---|---|---|
| CN101 | 1-580-722-11 | CONNECTOR, BOARD TO BOARD 28P |
| CN201 | 1-580-722-11 | CONNECTOR, BOARD TO BOARD 28P |

< VARIABLE CAPACITOR >

| | | |
|---|---|---|
| CV131 | 1-141-423-61 | CAP, ADJ 20P |
| CV171 | 1-141-424-11 | CAP, ADJ 30P |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| | | < DIODE > | |
| D131 | 8-719-988-40 | DIODE HVR17TRF | |
| D171 | 8-719-988-40 | DIODE HVR17TRF | |
| D181 | 8-719-104-34 | DIODE 1S2836 | |
| D371 | 8-719-988-40 | DIODE HVR17TRF | |
| D451 | 8-719-988-40 | DIODE HVR17TRF | |
| | | < FERRITE BEAD > | |
| FB010 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB011 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB012 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB013 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB014 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB015 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB016 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB017 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB018 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB019 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB020 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB021 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB022 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB023 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB024 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB025 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB026 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB027 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB028 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB029 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB030 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB031 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB051 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB052 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB053 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB054 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB055 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB056 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB057 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB058 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB059 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB060 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB061 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB062 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB063 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB064 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB065 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB066 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB067 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB068 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB069 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB070 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB071 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB072 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB073 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB074 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB101 | 1-543-813-21 | FILTER, EMI | |
| FB102 | 1-543-813-21 | FILTER, EMI | |
| FB103 | 1-216-296-91 | METAL GLAZE 0 5% 1/8W | |
| FB121 | 1-543-813-21 | FILTER, EMI | |
| FB122 | 1-543-813-21 | FILTER, EMI | |
| FB123 | 1-216-296-91 | METAL GLAZE 0 5% 1/8W | |
| FB133 | 1-543-813-21 | FILTER, EMI | |
| FB171 | 1-543-813-21 | FILTER, EMI | |
| FB181 | 1-543-813-21 | FILTER, EMI | |
| FB201 | 1-543-813-21 | FILTER, EMI | |
| FB202 | 1-543-813-21 | FILTER, EMI | |
| FB211 | 1-543-813-21 | FILTER, EMI | |
| FB212 | 1-543-813-21 | FILTER, EMI | |
| FB221 | 1-543-813-21 | FILTER, EMI | |
| FB222 | 1-543-813-21 | FILTER, EMI | |
| FB231 | 1-543-813-21 | FILTER, EMI | |
| FB301 | 1-543-813-21 | FILTER, EMI | |
| FB371 | 1-543-813-21 | FILTER, EMI | |
| FB372 | 1-543-813-21 | FILTER, EMI | |
| FB401 | 1-543-813-21 | FILTER, EMI | |
| FB421 | 1-543-813-21 | FILTER, EMI | |
| FB471 | 1-543-813-21 | FILTER, EMI | |
| | | < IC > | |
| IC101 | 8-752-334-55 | IC CXD1175AM (Y A/D CONVERTER) | |
| IC121 | 8-752-334-55 | IC CXD1175AM (C A/D CONVERTER) | |
| IC131 | 8-759-987-20 | IC CXD1229Q (WRITE TIMING GEN) | |
| IC132 | 8-759-030-16 | IC MC34182M (BUFFER) | |
| IC151 | 8-759-710-82 | IC NJM2406F (CLAMP) | |
| IC152 | 8-759-907-81 | IC SN74LS221NS (M.M) | |
| IC153 | 8-759-032-23 | IC MC74HC74AF (LATCH) | |
| IC154 | 8-759-063-30 | IC MC74HC374AF (LATCH) | |
| IC181 | 8-759-987-17 | IC CXD1226Q (DIGITAL CHROMA DECODER /DIGITAL NOISE REDUCTION) | |
| IC201 | 8-752-340-75 | IC CXK1206AM (RAM) | |
| IC202 | 8-752-340-75 | IC CXK1206AM (RAM) | |
| IC211 | 8-752-340-75 | IC CXK1206AM (RAM) | |
| IC212 | 8-752-340-75 | IC CXK1206AM (RAM) | |
| IC221 | 8-752-340-75 | IC CXK1206AM (RAM) | |
| IC222 | 8-752-340-75 | IC CXK1206AM (RAM) | |
| IC301 | 8-759-089-60 | IC MB87448A-003 (MEMORY CONTROLLER) | |
| IC302 | 8-759-032-20 | IC MC74HC32AF (MUTE/PULSE GEN) | |
| IC303 | 8-759-180-86 | IC TC7W74F-TE12L (MUTE/PULSE GEN) | |
| IC304 | 8-759-242-72 | IC TC7W00F (MUTE/PULSE GEN) | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| IC305 | 8-759-926-97 | IC SN74HC4024NS (MUTE/PULSE GEN) | |
| IC331 | 8-759-191-44 | IC MB623831 (GATE ARRAY) | |
| IC351 | 8-759-987-18 | IC CXD1227Q (DIGITAL CHROMA ENCODER /SPECIAL EFFECTS GEN) | |
| IC353 | 8-759-035-93 | IC SC7S32F (GATE) | |
| IC371 | 8-752-306-51 | IC CX23065A (PHASE COMP) | |
| IC401 | 8-752-334-64 | IC CXD1171M (Y D/A CONVERTER) | |
| IC421 | 8-752-334-64 | IC CXD1171M (C D/A CONVERTER) | |
| IC451 | 8-759-987-20 | IC CXD1229Q (READ TIMING GEN) | |
| IC452 | 8-759-035-93 | IC SC7S32F (BUFFER) | |
| IC471 | 8-759-242-74 | IC TC7W04F (INV) | |
| IC472 | 8-759-063-30 | IC MC74HC374AF (D-LATCH) | |
| IC932 | 8-759-242-68 | IC TC7W32F (INC MASK) | |
| IC933 | 8-759-242-76 | IC TC7W08F (INC MASK) | |
| IC934 | 8-759-032-23 | IC MC74HC74AF (INC MASK) | |
| | | < COIL > | |
| L131 | 1-410-393-11 | INDUCTOR CHIP 100uH | |
| L132 | 1-410-377-31 | INDUCTOR CHIP 4.7uH | |
| L451 | 1-410-377-31 | INDUCTOR CHIP 4.7uH | |
| | | < TRANSISTOR > | |
| Q101 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q131 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q171 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q371 | 8-729-120-28 | TRANSISTOR 2SC1623-L5L6 | |
| Q401 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| Q421 | 8-729-216-22 | TRANSISTOR 2SA1162-G | |
| | | < RESISTOR > | |
| R101 | 1-218-845-11 | METAL CHIP 820 0.50% 1/16W | |
| R102 | 1-218-867-11 | METAL CHIP 6.8K 0.50% 1/16W | |
| R103 | 1-218-845-11 | METAL CHIP 820 0.50% 1/16W | |
| R104 | 1-216-811-11 | METAL CHIP 150 5% 1/16W | |
| R121 | 1-216-811-11 | METAL CHIP 150 5% 1/16W | |
| R122 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R123 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R131 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R132 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R133 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R134 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R135 | 1-218-853-11 | METAL CHIP 1.8K 0.50% 1/16W | |
| R136 | 1-216-855-11 | METAL CHIP 680K 5% 1/16W | |
| R137 | 1-216-825-11 | METAL CHIP 2.2K 5% 1/16W | |
| R138 | 1-216-804-11 | METAL CHIP 39 5% 1/16W | |
| R139 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R140 | 1-216-825-11 | METAL CHIP 2.2K 5% 1/16W | |
| R141 | 1-216-804-11 | METAL CHIP 39 5% 1/16W | |
| R142 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R143 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| R144 | 1-216-809-11 | METAL CHIP 100 5% 1/16W | |
| R145 | 1-216-839-11 | METAL CHIP 33K 5% 1/16W | |
| R146 | 1-216-839-11 | METAL CHIP 33K 5% 1/16W | |
| R147 | 1-216-839-11 | METAL CHIP 33K 5% 1/16W | |
| R148 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R149 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R150 | 1-216-839-11 | METAL CHIP 33K 5% 1/16W | |
| R151 | 1-216-838-11 | METAL CHIP 27K 5% 1/16W | |
| R152 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R153 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R154 | 1-216-821-11 | METAL CHIP 1K 5% 1/16W | |
| R155 | 1-216-825-11 | METAL CHIP 2.2K 5% 1/16W | |
| R156 | 1-216-840-11 | METAL CHIP 39K 5% 1/16W | |
| R157 | 1-218-295-11 | METAL GLAZE 43K 5% 1/16W | |
| R171 | 1-216-825-11 | METAL CHIP 2.2K 5% 1/16W | |
| R172 | 1-216-837-11 | METAL CHIP 22K 5% 1/16W | |
| R173 | 1-216-839-11 | METAL CHIP 33K 5% 1/16W | |
| R174 | 1-216-839-11 | METAL CHIP 33K 5% 1/16W | |
| R175 | 1-216-809-11 | METAL CHIP 100 5% 1/16W | |
| R181 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R182 | 1-220-372-11 | METAL GLAZE 200K 5% 1/16W | |
| R183 | 1-216-852-11 | METAL CHIP 390K 5% 1/16W | |
| R184 | 1-216-856-11 | METAL CHIP 820K 5% 1/16W | |
| R185 | 1-216-857-11 | METAL CHIP 1M 5% 1/16W | |
| R186 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R187 | 1-216-857-11 | METAL CHIP 1M 5% 1/16W | |
| R188 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R189 | 1-220-372-11 | METAL GLAZE 200K 5% 1/16W | |
| R190 | 1-216-852-11 | METAL CHIP 390K 5% 1/16W | |
| R191 | 1-216-856-11 | METAL CHIP 820K 5% 1/16W | |
| R192 | 1-216-823-11 | METAL CHIP 1.5K 5% 1/16W | |
| R193 | 1-216-809-11 | METAL CHIP 100 5% 1/16W | |
| R194 | 1-216-809-11 | METAL CHIP 100 5% 1/16W | |
| R197 | 1-216-829-11 | METAL CHIP 4.7K 5% 1/16W | |
| R198 | 1-216-829-11 | METAL CHIP 4.7K 5% 1/16W | |
| R302 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R303 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R304 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R305 | 1-216-864-11 | METAL CHIP 0 5% 1/16W | |
| R306 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R307 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R308 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R309 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R310 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R311 | 1-216-833-11 | METAL CHIP 10K 5% 1/16W | |
| R314 | 1-216-864-11 | METAL CHIP 0 5% 1/16W | |
| R315 | 1-216-864-11 | METAL CHIP 0 5% 1/16W | |
| R318 | 1-216-864-11 | METAL CHIP 0 5% 1/16W | |
| R321 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |
| R322 | 1-216-845-11 | METAL CHIP 100K 5% 1/16W | |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R323 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R324 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R331 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R333 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R351 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R352 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W |
| R370 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R371 | 1-216-828-11 | METAL CHIP | 3.9K | 5% | 1/16W |
| R372 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R373 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R374 | 1-216-840-11 | METAL CHIP | 39K | 5% | 1/16W |
| R375 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R401 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R402 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R403 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R404 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R405 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R406 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R407 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R408 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R409 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R410 | 1-218-831-11 | METAL GLAZE | 220 | 0.50% | 1/16W |
| R411 | 1-218-831-11 | METAL GLAZE | 220 | 0.50% | 1/16W |
| R412 | 1-216-816-11 | METAL CHIP | 390 | 5% | 1/16W |
| R421 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R422 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R423 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R424 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R425 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R426 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R427 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R428 | 1-216-809-11 | METAL CHIP | 100 | 5% | 1/16W |
| R429 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R430 | 1-218-831-11 | METAL GLAZE | 220 | 0.50% | 1/16W |
| R431 | 1-218-831-11 | METAL GLAZE | 220 | 0.50% | 1/16W |
| R432 | 1-216-816-11 | METAL CHIP | 390 | 5% | 1/16W |
| R451 | 1-218-844-11 | METAL CHIP | 750 | 0.50% | 1/16W |
| R452 | 1-216-855-11 | METAL CHIP | 680K | 5% | 1/16W |
| R453 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R454 | 1-216-807-11 | METAL CHIP | 68 | 5% | 1/16W |
| R455 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R456 | 1-216-825-11 | METAL CHIP | 2.2K | 5% | 1/16W |
| R457 | 1-216-806-11 | METAL GLAZE | 56 | 5% | 1/16W |
| R458 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R459 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R461 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R462 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R463 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R464 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |
| R465 | 1-216-839-11 | METAL CHIP | 33K | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R466 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R467 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R469 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R475 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| | | < VIBRATOR > | | | |
| X171 | 1-579-780-21 | VIBRATOR, CRYSTAL 14.31 MHz | | | |
| X371 | 1-579-780-21 | VIBRATOR, CRYSTAL 14.31 MHz | | | |
| ********** | | | | | |
| * | A-7053-847-A | RE-25 BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | (Ref. No. 3,000 Seriese) | | | |
| | 1-751-560-11 | CABLE, FLAT (FAI-1) | | | |
| | 1-751-561-11 | CABLE, FLAT (FAO-1) | | | |
| | | < CAPACITOR > | | | |
| C301 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C302 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C304 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C305 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C306 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C307 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C309 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C310 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C311 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C312 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C313 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C314 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C315 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C316 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C317 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C318 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C319 | 1-163-035-00 | CERAMIC CHIP | 0.047uF | | 50V |
| C321 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C322 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C323 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C324 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C325 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C326 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C327 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C328 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C329 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C330 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C331 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C332 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C333 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C334 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C335 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C336 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C337 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C338 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C339 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C340 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C404 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C405 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C406 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C407 | 1-126-204-11 | ELECT CHIP | 47uF | 20% | 16V |
| C409 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C410 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C411 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C421 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C422 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C423 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C424 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C425 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C426 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C427 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C428 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C429 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C430 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C431 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C432 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| C433 | 1-163-025-11 | CERAMIC CHIP | 0.001uF | | 50V |
| C434 | 1-126-400-11 | ELECT | 22uF | 20% | 35V |
| | | < CONNECTOR > | | | |
| CN301 | 1-566-532-11 | CONNECTOR, FPC (ZIF) 16P | | | |
| CN302 | 1-568-207-11 | CONNECTOR, FPC (ZIF) 23P | | | |
| CN303 | 1-506-479-11 | PIN, CONNECTOR 14P | | | |
| CN304 | 1-506-477-11 | PIN, CONNECTOR 12P | | | |
| * CN305 | 1-564-009-11 | PIN, CONNECTOR 10P | | | |
| CN306 | 1-506-471-11 | PIN, CONNECTOR 6P | | | |
| CN307 | 1-506-471-11 | PIN, CONNECTOR 6P | | | |
| | | < DIODE > | | | |
| D301 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D302 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D303 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D304 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D305 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D306 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D311 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D312 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D313 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D314 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D315 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D316 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D317 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D318 | 8-719-107-15 | DIODE | RD18M-B2 | | |
| D319 | 8-719-107-15 | DIODE | RD18M-B2 | | |

| Ref. No. | Part No. | Description | | Remarks |
|---|---|---|---|---|
| D320 | 8-719-107-15 | DIODE | RD18M-B2 | |
| D321 | 8-719-107-15 | DIODE | RD18M-B2 | |
| D322 | 8-719-107-15 | DIODE | RD18M-B2 | |
| D323 | 8-719-107-15 | DIODE | RD18M-B2 | |
| D324 | 8-719-107-15 | DIODE | RD18M-B2 | |
| D331 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D332 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D333 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D334 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D335 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D336 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D337 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D338 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D339 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D340 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D341 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D342 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D343 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D344 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D345 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D346 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D347 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D348 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D349 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D350 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D351 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D352 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D361 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D362 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D363 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D364 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D365 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D366 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D367 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D368 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D369 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D370 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D371 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D372 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D373 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D374 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D375 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D376 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D377 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D378 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D379 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D380 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D381 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D382 | 8-719-106-80 | DIODE | RD13M-B2 | |
| D383 | 8-719-106-80 | DIODE | RD13M-B2 | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| D384 | 8-719-106-80 | DIODE RD13M-B2 | |
| D391 | 8-719-106-80 | DIODE RD13M-B2 | |
| D392 | 8-719-106-80 | DIODE RD13M-B2 | |
| D393 | 8-719-106-80 | DIODE RD13M-B2 | |
| D394 | 8-719-106-80 | DIODE RD13M-B2 | |
| D395 | 8-719-106-80 | DIODE RD13M-B2 | |
| D396 | 8-719-106-80 | DIODE RD13M-B2 | |
| D401 | 8-719-107-15 | DIODE RD18M-B2 | |
| D402 | 8-719-107-15 | DIODE RD18M-B2 | |
| D403 | 8-719-107-15 | DIODE RD18M-B2 | |
| D404 | 8-719-107-15 | DIODE RD18M-B2 | |
| D405 | 8-719-107-15 | DIODE RD18M-B2 | |
| D406 | 8-719-107-15 | DIODE RD18M-B2 | |
| D411 | 8-719-107-15 | DIODE RD18M-B2 | |
| D412 | 8-719-107-15 | DIODE RD18M-B2 | |
| D413 | 8-719-107-15 | DIODE RD18M-B2 | |
| D414 | 8-719-107-15 | DIODE RD18M-B2 | |
| D415 | 8-719-107-15 | DIODE RD18M-B2 | |
| D416 | 8-719-107-15 | DIODE RD18M-B2 | |
| D417 | 8-719-107-15 | DIODE RD18M-B2 | |
| D418 | 8-719-107-15 | DIODE RD18M-B2 | |
| D419 | 8-719-107-15 | DIODE RD18M-B2 | |
| D420 | 8-719-107-15 | DIODE RD18M-B2 | |
| D421 | 8-719-107-15 | DIODE RD18M-B2 | |
| D422 | 8-719-107-15 | DIODE RD18M-B2 | |
| D423 | 8-719-107-15 | DIODE RD18M-B2 | |
| D424 | 8-719-107-15 | DIODE RD18M-B2 | |
| | | < FERRITE BEAD > | |
| FB301 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB302 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB303 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB311 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB312 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB313 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB314 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB315 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB316 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB317 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB321 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB324 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB325 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB328 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB329 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB330 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB331 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB332 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB333 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB334 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB335 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB341 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB344 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB345 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB348 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB349 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB352 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB353 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB356 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB357 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB358 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB359 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB360 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB361 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB362 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB363 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB364 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB401 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB402 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB403 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB411 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB412 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB413 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB414 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB415 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB416 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB417 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| | | < IC > | |
| IC301 | 8-759-981-86 | IC RC4556MA (AMP) | |
| IC302 | 8-759-100-96 | IC uPC4558G2 (BUFFER AMP) | |
| IC303 | 8-759-100-96 | IC uPC4558G2 (BUFFER AMP) | |
| IC304 | 8-759-100-96 | IC uPC4558G2 (BUFFER AMP) | |
| IC305 | 8-759-100-96 | IC uPC4558G2 (BUFFER AMP) | |
| IC306 | 8-759-100-96 | IC uPC4558G2 (BUFFER AMP) | |
| IC401 | 8-759-981-86 | IC RC4556MA (AMP) | |
| IC402 | 8-759-100-96 | IC uPC4558G2 (BUFFER AMP) | |
| IC403 | 8-759-100-96 | IC uPC4558G2 (BUFFER AMP) | |
| | | < JACK > | |
| * J301 | 1-537-606-11 | TERMINAL BOARD (PLAYER 1/2) | |
| * J302 | 1-537-606-21 | TERMINAL BOARD (AUX 1/2 RECORDER/PGM 1) | |
| * J303 | 1-537-607-11 | TERMINAL BOARD (PGM 2/MONITOR) | |
| * J304 | 1-764-066-11 | CONNECTOR, BNC (BB OUT) | |
| * J305 | 1-764-066-11 | CONNECTOR, BNC (BB OUT) | |
| * J306 | 1-764-066-11 | CONNECTOR, BNC (GPI OUT) | |
| * J307 | 1-764-067-11 | CONNECTOR, BNC (GPI IN) | |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| | | < TRANSISTOR > | | | |
| Q301 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | | |
| Q302 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | | |
| Q303 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | | |
| Q304 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | | |
| Q401 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | | |
| Q402 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | | |
| Q403 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | | |
| Q404 | 8-729-202-38 | TRANSISTOR | 2SC3326N-A | | |
| | | < RESISTOR > | | | |
| R301 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R302 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R303 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W |
| R304 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R305 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R306 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R307 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R308 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R309 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R311 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R312 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W |
| R313 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R314 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R315 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R316 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R317 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R318 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R321 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R322 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R323 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R324 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R325 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R326 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R327 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R328 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R329 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R330 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R331 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R332 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R333 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R334 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R335 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R336 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R337 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R338 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R339 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R340 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R341 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R342 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R343 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R344 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R345 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R346 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R347 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R348 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R349 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R350 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R351 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R352 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R353 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R354 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R355 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R390 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R391 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R392 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R393 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R394 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R395 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R396 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R397 | 1-216-045-00 | METAL CHIP | 680 | 5% | 1/10W |
| R401 | 1-216-049-00 | METAL CHIP | 1K | 5% | 1/10W |
| R402 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R403 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W |
| R404 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R405 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R406 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R407 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R408 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R409 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R411 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R412 | 1-216-055-00 | METAL CHIP | 1.8K | 5% | 1/10W |
| R413 | 1-216-075-00 | METAL CHIP | 12K | 5% | 1/10W |
| R414 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R415 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R416 | 1-216-043-00 | METAL CHIP | 560 | 5% | 1/10W |
| R417 | 1-216-073-00 | METAL CHIP | 10K | 5% | 1/10W |
| R418 | 1-216-097-00 | METAL CHIP | 100K | 5% | 1/10W |
| R421 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R422 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R423 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R424 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R425 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R426 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R427 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R428 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R429 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R430 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R431 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R432 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R433 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R434 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R435 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R436 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R437 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R438 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R439 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R440 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R441 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R442 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R443 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R444 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R445 | 1-216-031-00 | METAL CHIP | 180 | 5% | 1/10W |
| R446 | 1-216-041-00 | METAL CHIP | 470 | 5% | 1/10W |
| R447 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R448 | 1-216-025-00 | METAL CHIP | 100 | 5% | 1/10W |
| R449 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R450 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R451 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R452 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R453 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R454 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |
| R455 | 1-216-105-00 | METAL CHIP | 220K | 5% | 1/10W |

< SWITCH >

| | | |
|---|---|---|
| S301 | 1-571-640-21 | SWITCH, SLIDE (PGM 1) |
| S302 | 1-571-640-21 | SWITCH, SLIDE (PGM 2) |
| S311 | 1-571-640-21 | SWITCH, SLIDE (PLAYER 1) |
| S312 | 1-571-640-21 | SWITCH, SLIDE (PLAYER 1) |
| S313 | 1-571-640-21 | SWITCH, SLIDE (PLAYER 2) |
| S314 | 1-571-640-21 | SWITCH, SLIDE (PLAYER 2) |
| S315 | 1-571-640-21 | SWITCH, SLIDE (AUX 1) |
| S316 | 1-571-640-21 | SWITCH, SLIDE (AUX 2) |
| S317 | 1-571-640-21 | SWITCH, SLIDE (RECORDER) |

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* A-7066-124-A RS-62 BOARD, COMPLETE

**********

(Ref. No. 4,000 Seriese)

< CAPACITOR >

| | | | | |
|---|---|---|---|---|
| C201 | 1-164-346-11 | CERAMIC CHIP | 1uF | 16V |
| C202 | 1-164-346-11 | CERAMIC CHIP | 1uF | 16V |
| C203 | 1-164-346-11 | CERAMIC CHIP | 1uF | 16V |
| C204 | 1-164-346-11 | CERAMIC CHIP | 1uF | 16V |
| C206 | 1-164-346-11 | CERAMIC CHIP | 1uF | 16V |
| C208 | 1-164-346-11 | CERAMIC CHIP | 1uF | 16V |
| C209 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C210 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C211 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C220 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C221 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C222 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C223 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C224 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C225 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C226 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C227 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C228 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C229 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C230 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |
| C231 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | 16V |

< CONNECTOR >

| | | |
|---|---|---|
| * CN201 | 1-569-035-11 | CONNECTOR, FPC (ZIF) 30P |
| CN251 | 1-565-388-21 | CONNECTOR, D-SUB 9P (1-PLAYER REMOTE-2 RS-232C) |
| CN252 | 1-565-388-21 | CONNECTOR, D-SUB 9P (1-PLAYER REMOTE-2 RS-232C) |
| CN253 | 1-565-388-21 | CONNECTOR, D-SUB 9P (RECORDER REMOTE RS-232C) |
| CN254 | 1-573-005-21 | CONNECTOR, D-SUB 9P (1-PLAYER REMOTE-2 RS-422) |
| CN255 | 1-573-005-21 | CONNECTOR, D-SUB 9P (1-PLAYER REMOTE-2 RS-422) |
| CN256 | 1-573-005-21 | CONNECTOR, D-SUB 9P (RECORDER REMOTE RS-422) |
| CN265 | 1-506-486-11 | PIN, CONNECTOR 7P |

< DIODE >

| | | | |
|---|---|---|---|
| D202 | 8-719-107-15 | DIODE | RD18M-B2 |
| D204 | 8-719-107-15 | DIODE | RD18M-B2 |
| D206 | 8-719-107-15 | DIODE | RD18M-B2 |
| D208 | 8-719-107-15 | DIODE | RD18M-B2 |
| D210 | 8-719-107-15 | DIODE | RD18M-B2 |
| D212 | 8-719-107-15 | DIODE | RD18M-B2 |
| D214 | 8-719-107-15 | DIODE | RD18M-B2 |
| D216 | 8-719-107-15 | DIODE | RD18M-B2 |
| D218 | 8-719-107-15 | DIODE | RD18M-B2 |
| D220 | 8-719-107-15 | DIODE | RD18M-B2 |
| D222 | 8-719-107-15 | DIODE | RD18M-B2 |
| D224 | 8-719-107-15 | DIODE | RD18M-B2 |
| D226 | 8-719-107-15 | DIODE | RD18M-B2 |
| D228 | 8-719-107-15 | DIODE | RD18M-B2 |
| D230 | 8-719-107-15 | DIODE | RD18M-B2 |
| D232 | 8-719-107-15 | DIODE | RD18M-B2 |
| D234 | 8-719-107-15 | DIODE | RD18M-B2 |
| D236 | 8-719-107-15 | DIODE | RD18M-B2 |
| D238 | 8-719-107-15 | DIODE | RD18M-B2 |
| D240 | 8-719-107-15 | DIODE | RD18M-B2 |
| D242 | 8-719-107-15 | DIODE | RD18M-B2 |
| D244 | 8-719-107-15 | DIODE | RD18M-B2 |
| D246 | 8-719-107-15 | DIODE | RD18M-B2 |
| D248 | 8-719-107-15 | DIODE | RD18M-B2 |
| D249 | 8-719-106-44 | DIODE | RD9.1M-B2 |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| D250 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D251 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D252 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D253 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D254 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D255 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D256 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D257 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D258 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D259 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D260 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D261 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D262 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D263 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D264 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D265 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D266 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D267 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D268 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D269 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D270 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D271 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D272 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D273 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D274 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D275 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D276 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D277 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D278 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D279 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D280 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D281 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D282 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D283 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D284 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D285 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D286 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D287 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D288 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D289 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| D290 | 8-719-106-44 | DIODE RD9.1M-B2 | |
| | | < FERRITE BEAD > | |
| FB201 | 1-543-775-11 | FILTER, EMI | |
| FB202 | 1-543-775-11 | FILTER, EMI | |
| FB203 | 1-543-775-11 | FILTER, EMI | |
| FB204 | 1-543-775-11 | FILTER, EMI | |
| FB205 | 1-543-775-11 | FILTER, EMI | |
| FB206 | 1-543-775-11 | FILTER, EMI | |
| FB207 | 1-543-775-11 | FILTER, EMI | |
| FB208 | 1-543-775-11 | FILTER, EMI | |
| FB209 | 1-543-775-11 | FILTER, EMI | |
| FB210 | 1-543-775-11 | FILTER, EMI | |
| FB211 | 1-543-775-11 | FILTER, EMI | |
| FB212 | 1-543-775-11 | FILTER, EMI | |
| FB213 | 1-543-775-11 | FILTER, EMI | |
| FB214 | 1-543-775-11 | FILTER, EMI | |
| FB215 | 1-543-775-11 | FILTER, EMI | |
| FB216 | 1-543-775-11 | FILTER, EMI | |
| FB217 | 1-543-775-11 | FILTER, EMI | |
| FB218 | 1-543-775-11 | FILTER, EMI | |
| FB219 | 1-543-775-11 | FILTER, EMI | |
| FB220 | 1-543-775-11 | FILTER, EMI | |
| FB221 | 1-543-775-11 | FILTER, EMI | |
| FB222 | 1-543-775-11 | FILTER, EMI | |
| FB223 | 1-543-775-11 | FILTER, EMI | |
| FB224 | 1-543-775-11 | FILTER, EMI | |
| FB225 | 1-543-775-11 | FILTER, EMI | |
| FB226 | 1-543-775-11 | FILTER, EMI | |
| FB228 | 1-543-775-11 | FILTER, EMI | |
| FB229 | 1-543-775-11 | FILTER, EMI | |
| FB230 | 1-543-775-11 | FILTER, EMI | |
| FB231 | 1-543-775-11 | FILTER, EMI | |
| FB232 | 1-543-775-11 | FILTER, EMI | |
| FB234 | 1-543-775-11 | FILTER, EMI | |
| FB235 | 1-543-775-11 | FILTER, EMI | |
| FB236 | 1-543-775-11 | FILTER, EMI | |
| FB237 | 1-543-775-11 | FILTER, EMI | |
| FB238 | 1-543-775-11 | FILTER, EMI | |
| FB239 | 1-543-775-11 | FILTER, EMI | |
| FB240 | 1-543-775-11 | FILTER, EMI | |
| FB242 | 1-543-775-11 | FILTER, EMI | |
| FB243 | 1-543-775-11 | FILTER, EMI | |
| FB244 | 1-543-775-11 | FILTER, EMI | |
| FB245 | 1-543-775-11 | FILTER, EMI | |
| FB246 | 1-543-775-11 | FILTER, EMI | |
| FB247 | 1-543-775-11 | FILTER, EMI | |
| FB248 | 1-543-775-11 | FILTER, EMI | |
| FB249 | 1-543-775-11 | FILTER, EMI | |
| FB250 | 1-543-775-11 | FILTER, EMI | |
| FB251 | 1-543-775-11 | FILTER, EMI | |
| FB252 | 1-543-775-11 | FILTER, EMI | |
| FB253 | 1-543-775-11 | FILTER, EMI | |
| FB254 | 1-543-775-11 | FILTER, EMI | |
| FB255 | 1-543-775-11 | FILTER, EMI | |
| FB271 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB272 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB273 | 1-412-390-21 | INDUCTOR CHIP 0uH | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| FB274 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB275 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB276 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB277 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB278 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB279 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB280 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB281 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB282 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB283 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB284 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB285 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB286 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB287 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB288 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB289 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB290 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| FB291 | 1-412-390-21 | INDUCTOR CHIP 0uH | |
| | | < IC > | |
| IC202 | 8-759-011-65 | IC MC74HC4053F (RS-232C/422 SELECT SWITCH) | |
| IC203 | 8-759-011-65 | IC MC74HC4053F (RS-232C/422 SELECT SWITCH) | |
| IC204 | 8-759-923-65 | IC AM26LS31CNS (RS-422 DRIVER) | |
| IC206 | 8-759-923-64 | IC AM26LS32ACNS (RS-422 DRIVER) | |
| IC207 | 8-759-092-85 | IC MAX241CWI-T(RS-232C DRIVER/RECEIVER) | |
| IC208 | 8-759-092-85 | IC MAX241CWI-T(RS-232C DRIVER/RECEIVER) | |
| IC209 | 8-759-092-85 | IC MAX241CWI-T(RS-232C DRIVER/RECEIVER) | |
| | | < COIL > | |
| L201 | 1-412-028-11 | INDUCTOR CHIP 4.7uH | |
| | | < RESISTOR > | |
| R222 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R223 | 1-216-073-00 | METAL CHIP 10K 5% 1/10W | |
| R224 | 1-216-077-00 | METAL CHIP 15K 5% 1/10W | |
| R225 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R226 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R227 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R228 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R229 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R230 | 1-216-089-91 | METAL GLAZE 47K 5% 1/10W | |
| R235 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R236 | 1-216-182-00 | METAL GLAZE 220 5% 1/8W | |
| R237 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R238 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R239 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R240 | 1-216-182-00 | METAL GLAZE 220 5% 1/8W | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| R241 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R242 | 1-216-182-00 | METAL GLAZE 220 5% 1/8W | |
| R243 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R244 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R245 | 1-216-182-00 | METAL GLAZE 220 5% 1/8W | |
| R246 | 1-216-053-00 | METAL CHIP 1.5K 5% 1/10W | |
| R247 | 1-216-182-00 | METAL GLAZE 220 5% 1/8W | |
| R248 | 1-216-182-00 | METAL GLAZE 220 5% 1/8W | |
| R249 | 1-216-182-00 | METAL GLAZE 220 5% 1/8W | |
| R250 | 1-216-182-00 | METAL GLAZE 220 5% 1/8W | |
| | | < SWITCH > | |
| S201 | 1-572-442-11 | SWITCH, SLIDE (RECORDER REMOTE) | |
| S202 | 1-572-442-11 | SWITCH, SLIDE (1-PLAYER REMOTE-2) | |
| ********** | | | |
| * | A-7066-126-A | VI-126 (P) BOARD, COMPLETE ********** | (Ref. No. 6,000 Seriese) |
| | | < CAPACITOR > | |
| C110 | 1-126-394-11 | ELECT CHIP 10uF 20% 16V | |
| C111 | 1-126-394-11 | ELECT CHIP 10uF 20% 16V | |
| C112 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| C113 | 1-164-237-11 | CERAMIC CHIP 16PF 5% 50V | |
| C114 | 1-163-110-00 | CERAMIC CHIP 51PF 5% 50V | |
| C115 | 1-162-916-11 | CERAMIC CHIP 12PF 5% 50V | |
| C116 | 1-162-916-11 | CERAMIC CHIP 12PF 5% 50V | |
| C117 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| C118 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| C119 | 1-126-394-11 | ELECT CHIP 10uF 20% 16V | |
| C120 | 1-164-005-11 | CERAMIC CHIP 0.47uF 25V | |
| C121 | 1-126-394-11 | ELECT CHIP 10uF 20% 16V | |
| C122 | 1-126-394-11 | ELECT CHIP 10uF 20% 16V | |
| C123 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| C152 | 1-126-394-11 | ELECT CHIP 10uF 20% 16V | |
| C153 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| C154 | 1-162-970-11 | CERAMIC CHIP 0.01uF 10% 25V | |
| C155 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| C156 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| C157 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| C158 | 1-126-206-11 | ELECT CHIP 100uF 20% 6.3V | |
| C159 | 1-162-970-11 | CERAMIC CHIP 0.01uF 10% 25V | |
| C160 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| C161 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| C162 | 1-126-206-11 | ELECT CHIP 100uF 20% 6.3V | |
| C163 | 1-162-970-11 | CERAMIC CHIP 0.01uF 10% 25V | |
| C164 | 1-164-217-11 | CERAMIC CHIP 150PF 5% 50V | |
| C165 | 1-126-394-11 | ELECT CHIP 10uF 20% 16V | |
| C166 | 1-164-156-11 | CERAMIC CHIP 0.1uF 25V | |
| C167 | 1-126-394-11 | ELECT CHIP 10uF 20% 16V | |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C168 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C169 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C170 | 1-162-968-11 | CERAMIC CHIP | 0.0047uF | 10% | 50V |
| C171 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C172 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C173 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C174 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C175 | 1-164-227-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C176 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C177 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C178 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C179 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C180 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C181 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C191 | 1-128-065-11 | ELECT | 68uF | 20% | 10V |
| C192 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C193 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C194 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C200 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C201 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C202 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C203 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C204 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C205 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C206 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C207 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C208 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C209 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C210 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C211 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C212 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C213 | 1-164-237-11 | CERAMIC CHIP | 16PF | 5% | 50V |
| C214 | 1-163-110-00 | CERAMIC CHIP | 51PF | 5% | 50V |
| C215 | 1-162-916-11 | CERAMIC CHIP | 12PF | 5% | 50V |
| C216 | 1-162-916-11 | CERAMIC CHIP | 12PF | 5% | 50V |
| C217 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C218 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C219 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C220 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C221 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C222 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C223 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C224 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C225 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C226 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C227 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C228 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C229 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C230 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C231 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C232 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C233 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C234 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C235 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C236 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C237 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C238 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C239 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C240 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C241 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C242 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C243 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C244 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C245 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C246 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C247 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C248 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C249 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C250 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C251 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C252 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C253 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C254 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C255 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C256 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C257 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C258 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C259 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C260 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C261 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C262 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C263 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C264 | 1-164-217-11 | CERAMIC CHIP | 150PF | 5% | 50V |
| C265 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C266 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C267 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C268 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C269 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C270 | 1-162-968-11 | CERAMIC CHIP | 0.0047uF | 10% | 50V |
| C271 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C272 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C273 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C274 | 1-164-005-11 | CERAMIC CHIP | 0.47uF | | 25V |
| C275 | 1-164-227-11 | CERAMIC CHIP | 0.022uF | 10% | 25V |
| C276 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C277 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C278 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C279 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C280 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C281 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C282 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C283 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C284 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C285 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C286 | 1-162-916-11 | CERAMIC CHIP | 12PF | 5% | 50V |
| C287 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C288 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C289 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C290 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C291 | 1-128-065-11 | ELECT | 68uF | 20% | 10V |
| C292 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C293 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C294 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C295 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C296 | 1-126-394-11 | ELECT CHIP | 10uF | 20% | 16V |
| C297 | 1-126-206-11 | ELECT CHIP | 100uF | 20% | 6.3V |
| C298 | 1-128-065-11 | ELECT | 68uF | 20% | 10V |
| C299 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C300 | 1-164-156-11 | CERAMIC CHIP | 0.1uF | | 25V |
| C811 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C812 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C813 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |
| C814 | 1-162-970-11 | CERAMIC CHIP | 0.01uF | 10% | 25V |

< CONNECTOR >

| | | |
|---|---|---|
| CN101 | 1-506-491-11 | PIN, CONNECTOR 12P |
| CN102 | 1-580-722-11 | CONNECTOR, BOARD TO BOARD 28P |
| CN103 | 1-580-722-11 | CONNECTOR, BOARD TO BOARD 28P |
| CN104 | 1-506-485-11 | PIN, CONNECTOR 6P |
| CN105 | 1-506-485-11 | PIN, CONNECTOR 6P |

< FERRITE BEAD >

| | | |
|---|---|---|
| FB101 | 1-543-813-21 | FILTER, EMI |
| FB151 | 1-543-813-21 | FILTER, EMI |
| FB191 | 1-543-813-21 | FILTER, EMI |
| FB200 | 1-543-813-21 | FILTER, EMI |
| FB201 | 1-543-813-21 | FILTER, EMI |
| FB204 | 1-543-813-21 | FILTER, EMI |
| FB209 | 1-543-813-21 | FILTER, EMI |
| FB210 | 1-543-813-21 | FILTER, EMI |
| FB251 | 1-543-813-21 | FILTER, EMI |
| FB291 | 1-543-813-21 | FILTER, EMI |

< FILTER >

| | | |
|---|---|---|
| FL101 | 1-239-593-11 | FILTER, LC |
| FL201 | 1-239-593-11 | FILTER, LC |

< IC >

| | | | |
|---|---|---|---|
| IC101 | 8-752-052-58 | IC | CXA1410M (INPUT SELECT) |
| IC104 | 8-759-011-64 | IC | MC74HC4052F (SELECTOR) |
| IC105 | 8-752-053-21 | IC | CXA1211M (VCA) |
| IC106 | 8-752-039-34 | IC | CXA1208Q (ACC & ACK) |
| IC107 | 8-759-710-82 | IC | NJM2406F (COMP) |
| IC191 | 8-759-822-XX | IC | L88MS05T-FA-TL (+5V REG) |
| IC201 | 8-752-052-58 | IC | CXA1410M (INPUT SELECT) |
| IC204 | 8-759-011-64 | IC | MC74HC4052F (SELECTOR) |
| IC205 | 8-752-053-21 | IC | CXA1211M (VCA) |
| IC206 | 8-752-039-34 | IC | CXA1208Q (ACC & ACK) |
| IC207 | 8-759-710-82 | IC | NJM2406F (COMP) |
| IC208 | 8-757-991-00 | IC | CX7991 (ADDRESS DECODER(SERIAL TO PARLLEL)) |
| IC209 | 8-757-991-00 | IC | CX7991 (ADDRESS DECODER(SERIAL TO PARLLEL)) |
| IC210 | 8-752-052-58 | IC | CXA1410M (INPUT SELECT) |
| IC211 | 8-759-822-XX | IC | L88MS05T-FA-TL (+5V REG) |
| IC291 | 8-759-822-XX | IC | L88MS05T-FA-TL (+5V REG) |

< COIL >

| | | |
|---|---|---|
| L101 | 1-410-388-31 | INDUCTOR CHIP 39uH |
| L102 | 1-410-388-31 | INDUCTOR CHIP 39uH |
| L103 | 1-410-658-31 | INDUCTOR CHIP 220uH |
| L105 | 1-410-658-31 | INDUCTOR CHIP 220uH |
| L106 | 1-410-658-31 | INDUCTOR CHIP 220uH |
| L107 | 1-410-658-31 | INDUCTOR CHIP 220uH |
| L201 | 1-410-388-31 | INDUCTOR CHIP 39uH |
| L202 | 1-410-388-31 | INDUCTOR CHIP 39uH |
| L203 | 1-410-658-31 | INDUCTOR CHIP 220uH |
| L205 | 1-410-658-31 | INDUCTOR CHIP 220uH |
| L206 | 1-410-658-31 | INDUCTOR CHIP 220uH |
| L207 | 1-410-658-31 | INDUCTOR CHIP 220uH |
| L208 | 1-410-658-31 | INDUCTOR CHIP 220uH |

< TRANSISTOR >

| | | | |
|---|---|---|---|
| Q101 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q102 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q103 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q104 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q105 | 8-729-216-22 | TRANSISTOR | 2SA1162-G |
| Q106 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q109 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q110 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q111 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q112 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q113 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q114 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q115 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q116 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q200 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q201 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q202 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q203 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q204 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 |
| Q205 | 8-729-216-22 | TRANSISTOR | 2SA1162-G |

| Ref. No. | Part No. | Description | | | | Remarks |
|---|---|---|---|---|---|---|
| Q206 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | |
| Q207 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | |
| Q208 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | |
| Q209 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | |
| Q210 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | |
| Q211 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | |
| Q212 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | |
| Q213 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | |
| Q214 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | |
| Q215 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | |
| Q216 | 8-729-120-28 | TRANSISTOR | 2SC1623-L5L6 | | | |
| | | < RESISTOR > | | | | |
| R101 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R102 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W | |
| R103 | 1-218-847-11 | METAL CHIP | 1K | 0.50% | 1/16W | |
| R104 | 1-218-847-11 | METAL CHIP | 1K | 0.50% | 1/16W | |
| R105 | 1-218-847-11 | METAL CHIP | 1K | 0.50% | 1/16W | |
| R106 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |
| R107 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |
| R108 | 1-218-852-11 | METAL CHIP | 1.6K | 0.50% | 1/16W | |
| R109 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W | |
| R110 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W | |
| R111 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W | |
| R112 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R113 | 1-218-857-11 | METAL CHIP | 2.7K | 0.50% | 1/16W | |
| R114 | 1-218-847-11 | METAL CHIP | 1K | 0.50% | 1/16W | |
| R115 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R116 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R133 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |
| R134 | 1-218-857-11 | METAL CHIP | 2.7K | 0.50% | 1/16W | |
| R135 | 1-218-840-11 | METAL GLAZE | 510 | 0.50% | 1/16W | |
| R136 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |
| R137 | 1-218-857-11 | METAL CHIP | 2.7K | 0.50% | 1/16W | |
| R138 | 1-218-840-11 | METAL GLAZE | 510 | 0.50% | 1/16W | |
| R139 | 1-218-840-11 | METAL GLAZE | 510 | 0.50% | 1/16W | |
| R140 | 1-218-839-11 | METAL GLAZE | 470 | 0.50% | 1/16W | |
| R141 | 1-218-853-11 | METAL CHIP | 1.8K | 0.50% | 1/16W | |
| R142 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |
| R143 | 1-218-852-11 | METAL CHIP | 1.6K | 0.50% | 1/16W | |
| R144 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R145 | 1-218-840-11 | METAL GLAZE | 510 | 0.50% | 1/16W | |
| R146 | 1-218-840-11 | METAL GLAZE | 510 | 0.50% | 1/16W | |
| R147 | 1-218-847-11 | METAL CHIP | 1K | 0.50% | 1/16W | |
| R148 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |
| R149 | 1-218-852-11 | METAL CHIP | 1.6K | 0.50% | 1/16W | |
| R150 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W | |
| R151 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W | |

| Ref. No. | Part No. | Description | | | | Remarks |
|---|---|---|---|---|---|---|
| R152 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W | |
| R153 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W | |
| R154 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W | |
| R156 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W | |
| R157 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W | |
| R158 | 1-216-830-11 | METAL CHIP | 5.6K | 5% | 1/16W | |
| R159 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R160 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W | |
| R161 | 1-218-484-11 | METAL GLAZE | 750 | 5% | 1/16W | |
| R162 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/16W | |
| R163 | 1-218-844-11 | METAL CHIP | 750 | 0.50% | 1/16W | |
| R164 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W | |
| R165 | 1-218-863-11 | METAL CHIP | 4.7K | 0.50% | 1/16W | |
| R166 | 1-218-879-11 | METAL CHIP | 22K | 0.50% | 1/16W | |
| R167 | 1-218-852-11 | METAL CHIP | 1.6K | 0.50% | 1/16W | |
| R168 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |
| R169 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R170 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W | |
| R191 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W | |
| R192 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W | |
| R200 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R201 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R202 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W | |
| R203 | 1-218-847-11 | METAL CHIP | 1K | 0.50% | 1/16W | |
| R204 | 1-218-847-11 | METAL CHIP | 1K | 0.50% | 1/16W | |
| R205 | 1-218-847-11 | METAL CHIP | 1K | 0.50% | 1/16W | |
| R206 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |
| R207 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |
| R208 | 1-218-852-11 | METAL CHIP | 1.6K | 0.50% | 1/16W | |
| R209 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W | |
| R210 | 1-216-857-11 | METAL CHIP | 1M | 5% | 1/16W | |
| R211 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W | |
| R212 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R213 | 1-218-857-11 | METAL CHIP | 2.7K | 0.50% | 1/16W | |
| R214 | 1-218-847-11 | METAL CHIP | 1K | 0.50% | 1/16W | |
| R215 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R216 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R217 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W | |
| R218 | 1-218-857-11 | METAL CHIP | 2.7K | 0.50% | 1/16W | |
| R219 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R220 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W | |
| R221 | 1-218-855-11 | METAL CHIP | 2.2K | 0.50% | 1/16W | |
| R222 | 1-218-847-11 | METAL CHIP | 1K | 0.50% | 1/16W | |
| R223 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |
| R224 | 1-218-852-11 | METAL CHIP | 1.6K | 0.50% | 1/16W | |
| R225 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |
| R226 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W | |
| R227 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W | |
| R228 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W | |
| R233 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W | |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R234 | 1-218-857-11 | METAL CHIP | 2.7K | 0.50% | 1/16W |
| R235 | 1-218-840-11 | METAL GLAZE | 510 | 0.50% | 1/16W |
| R236 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R237 | 1-218-857-11 | METAL CHIP | 2.7K | 0.50% | 1/16W |
| R238 | 1-218-840-11 | METAL GLAZE | 510 | 0.50% | 1/16W |
| R239 | 1-218-840-11 | METAL GLAZE | 510 | 0.50% | 1/16W |
| R240 | 1-218-839-11 | METAL GLAZE | 470 | 0.50% | 1/16W |
| R241 | 1-218-853-11 | METAL CHIP | 1.8K | 0.50% | 1/16W |
| R242 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R243 | 1-218-852-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R244 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R245 | 1-218-840-11 | METAL GLAZE | 510 | 0.50% | 1/16W |
| R246 | 1-218-840-11 | METAL GLAZE | 510 | 0.50% | 1/16W |
| R247 | 1-218-847-11 | METAL CHIP | 1K | 0.50% | 1/16W |
| R248 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R249 | 1-218-852-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R250 | 1-216-821-11 | METAL CHIP | 1K | 5% | 1/16W |
| R251 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R252 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R253 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R254 | 1-216-845-11 | METAL CHIP | 100K | 5% | 1/16W |
| R256 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R257 | 1-216-827-11 | METAL CHIP | 3.3K | 5% | 1/16W |
| R258 | 1-216-830-11 | METAL CHIP | 5.6K | 5% | 1/16W |
| R259 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R260 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R261 | 1-218-484-11 | METAL GLAZE | 750 | 5% | 1/16W |
| R262 | 1-216-814-11 | METAL CHIP | 270 | 5% | 1/16W |
| R263 | 1-218-844-11 | METAL CHIP | 750 | 0.50% | 1/16W |
| R264 | 1-218-851-11 | METAL CHIP | 1.5K | 0.50% | 1/16W |
| R265 | 1-218-863-11 | METAL CHIP | 4.7K | 0.50% | 1/16W |
| R266 | 1-218-879-11 | METAL CHIP | 22K | 0.50% | 1/16W |
| R267 | 1-218-852-11 | METAL CHIP | 1.6K | 0.50% | 1/16W |
| R268 | 1-218-859-11 | METAL CHIP | 3.3K | 0.50% | 1/16W |
| R269 | 1-216-817-11 | METAL CHIP | 470 | 5% | 1/16W |
| R270 | 1-216-829-11 | METAL CHIP | 4.7K | 5% | 1/16W |
| R271 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R272 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R273 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R274 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R275 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R276 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R277 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R278 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R279 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R280 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R281 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R282 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R283 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R284 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R285 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R286 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R287 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R288 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R289 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R290 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R291 | 1-216-833-11 | METAL CHIP | 10K | 5% | 1/16W |
| R292 | 1-216-849-11 | METAL CHIP | 220K | 5% | 1/16W |
| R293 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R294 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R295 | 1-216-813-11 | METAL CHIP | 220 | 5% | 1/16W |
| R811 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R812 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R813 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R814 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R815 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R816 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R817 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R818 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R819 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R820 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R821 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R822 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R823 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R824 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R825 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R826 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R827 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R828 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R829 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R830 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R831 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R832 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R833 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |
| R834 | 1-218-827-11 | METAL GLAZE | 150 | 0.50% | 1/16W |

< VIBRATOR >

| | | |
|---|---|---|
| X101 | 1-579-366-11 | VIBRATOR, CRYSTAL |
| X201 | 1-579-366-11 | VIBRATOR, CRYSTAL |

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| | | | |
|---|---|---|---|
| ⚠ | 1-413-954-11 | POWER BLOCK | |
| | | ********** | |
| | | | (Ref.No.9,000 Seriese) |
| ⚠ | 1-533-225-11 | FUSE CLIP | |

< CAPACITOR >

| | | | | | |
|---|---|---|---|---|---|
| ⚠ | C001 | 9-907-314-01 | FILM | 0.47uF | 250V |
| ⚠ | C002 | 9-906-821-01 | CERAMIC | 100PF | |
| ⚠ | C003 | 9-906-821-01 | CERAMIC | 100PF | |
| ⚠ | C004 | 9-907-314-01 | FILM | 0.47uF | 250V |
| | C005 | 1-136-153-00 | FILM | 0.01uF 5% | 50V |

# POWER BLOCK

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C006 | 1-128-195-11 | ELECT | 39uF | 20% | 25V |
| C007 | 9-906-823-01 | ELECT | 680uF | | 200V |
| C008 | 9-906-823-01 | ELECT | 680uF | | 200V |
| C009 | 9-907-315-01 | ELECT | 100uF | 20% | 50V |
| C010 | 1-107-518-11 | ELECT | 39uF | 20% | 50V |
| C011 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C012 | 1-130-500-11 | FILM | 470PF | | |
| C013 | 1-107-427-11 | CERAMIC | 0.001uF | 10% | 1KV |
| C014 | 1-107-427-11 | CERAMIC | 0.001uF | 10% | 1KV |
| C015 | 9-906-824-01 | ELECT | 180uF | | 35V |
| C016 | 1-124-510-11 | ELECT | 220uF | 20% | 35V |
| C017 | 1-161-485-00 | CERAMIC | 0.1uF | Z% | 50V |
| C018 | 1-107-427-11 | CERAMIC | 0.001uF | 10% | 1KV |
| C019 | 1-107-427-11 | CERAMIC | 0.001uF | 10% | 1KV |
| C020 | 1-124-539-11 | ELECT | 330uF | 20% | 35V |
| C021 | 1-124-539-11 | ELECT | 330uF | 20% | 35V |
| C022 | 1-128-195-11 | ELECT | 39uF | 20% | 25V |
| C023 | 1-124-510-11 | ELECT | 220uF | 20% | 35V |
| C024 | 1-161-485-11 | CERAMIC | 0.1uF | Z% | 50V |
| C025 | 1-161-485-11 | CERAMIC | 0.1uF | Z% | 50V |
| C026 | 9-906-825-01 | FILM | 4700PF | | 250V |
| C027 | 9-906-825-01 | FILM | 4700PF | | 250V |
| C028 | 1-124-510-11 | ELECT | 220uF | 20% | 35V |
| C029 | 1-124-942-11 | ELECT | 180uF | 20% | 10V |
| C030 | 1-161-485-11 | CERAMIC | 0.1uF | Z% | 50V |
| C031 | 1-124-942-11 | ELECT | 180uF | 20% | 10V |
| C032 | 1-161-485-11 | CERAMIC | 0.1uF | Z% | 50V |
| C033 | 9-906-826-01 | FILM | 0.01uF | | 250V |
| C034 | 9-906-826-01 | FILM | 0.01uF | | 250V |
| C035 | 1-124-568-00 | ELECT | 4700uF | 20% | 10V |
| C036 | 1-124-567-00 | ELECT | 1200uF | 20% | 10V |
| C037 | 1-161-485-11 | CERAMIC | 0.1uF | Z% | 50V |
| C038 | 9-906-827-01 | ELECT | 39uF | | 35V |
| C039 | 9-906-827-01 | ELECT | 39uF | | 35V |
| C040 | 9-906-828-01 | ELECT | 1uF | | 50V |
| C042 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C100 | 9-906-830-01 | CERAMIC | 2200PF | | |
| | | < CONNECTOR > | | | |
| CN001 | 9-906-841-01 | CONNECTOR 3P | | | |
| CN002 | 1-564-030-00 | CONNECTOR 5P | | | |
| CN003 | 1-564-033-00 | CONNECTOR 8P | | | |
| | | < AC INLET > | | | |
| ⚠CNJ001 | 9-906-840-01 | AC INLET | | | |
| | | < CRYSTAL > | | | |
| CR001 | 9-906-808-01 | TRIAC | | | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| | | < DIODE > | |
| D001 | 8-719-500-58 | DIODE D3SB60 | |
| D002 | 8-719-951-30 | DIODE ERA91-02 | |
| D003 | 8-719-971-20 | DIODE ERC38-06 | |
| D004 | 8-719-971-20 | DIODE ERC38-06 | |
| D005 | 8-719-951-30 | DIODE ERA91-02 | |
| D006 | 8-719-951-30 | DIODE ERA91-02 | |
| D007 | 8-719-920-67 | DIODE ERC91-02 | |
| D008 | 8-719-920-67 | DIODE ERC91-02 | |
| D009 | 8-719-200-02 | DIODE 10E-2 | |
| D010 | 8-719-200-02 | DIODE 10E-2 | |
| D011 | 9-906-807-01 | DIODE ERC90M-02 | |
| D012 | 9-906-807-01 | DIODE ERC90M-02 | |
| D013 | 8-719-200-02 | DIODE 10E-2 | |
| D014 | 8-719-200-02 | DIODE 10E-2 | |
| D015 | 8-719-200-02 | DIODE 10E-2 | |
| D016 | 8-719-200-02 | DIODE 10E-2 | |
| D017 | 8-719-971-00 | DIODE ERAC85M-009 | |
| D018 | 8-719-200-02 | DIODE 10E-2 | |
| D019 | 8-719-200-02 | DIODE 10E-2 | |
| D020 | 8-719-200-02 | DIODE 10E-2 | |
| D021 | 8-719-200-02 | DIODE 10E-2 | |
| D022 | 8-719-992-35 | DIODE ESAD83M-004 | |
| D023 | 8-719-911-19 | DIODE 1SS119 | |
| ZD001 | 8-719-160-80 | DIODE RD27FB2 | |
| ZD002 | 8-719-160-88 | DIODE RD33FB3 | |
| ZD003 | 8-719-109-51 | DIODE RD2.0ESAB2 | |
| ZD004 | 8-719-109-93 | DIODE RD6.2ESAB2 | |
| ZD005 | 8-719-110-88 | DIODE RD39ESB2 | |
| | | < FUSE > | |
| ⚠F001 | 1-576-133-11 | FUSE 3.15A 250V | |
| ⚠F001 | 9-906-837-01 | FUSE CLIP | |
| | | < HIC > | |
| HIC001 | 9-906-811-01 | IC-005 | |
| | | < IC > | |
| IC001 | 8-759-154-48 | IC uPC24M15HF (+15V REG) | |
| IC002 | 8-759-154-48 | IC uPC24M15HF (-15V REG) | |
| IC003 | 9-906-809-01 | IC uPC79M08HF (-8V REG) | |
| IC004 | 8-759-513-71 | IC PQ05RF21 (+5V REG) | |
| IC005 | 9-906-810-01 | IC PQ05RF14 (+5V REG) | |
| IC006 | 8-759-140-85 | IC uPC1093J | |
| | | < COIL > | |
| L001 | 9-906-831-01 | LINE FILTER | |
| L002 | 9-906-832-01 | LINE FILTER | |
| L003 | 9-906-833-01 | CHOK COIL | |
| L004 | 9-906-833-01 | CHOK COIL | |
| L005 | 9-906-834-01 | CHOK COIL | |



**Note:** The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| L006 | 9-906-835-01 | CHOK COIL | | | |
| L007 | 9-906-836-01 | FERRITE BEAD | | | |
| L008 | 9-906-836-01 | FERRITE BEAD | | | |
| L009 | 9-906-836-01 | FERRITE BEAD | | | |
| L010 | 9-906-836-01 | FERRITE BEAD | | | |
| | | < PHOTO COUPLER > | | | |
| PC001 | 9-998-135-01 | PHOTO COUPLER PC113 | | | |
| PC002 | 9-906-813-01 | PHOTO COUPLER TLP741J | | | |
| | | < FET > | | | |
| ⚠Q001 | 9-906-806-01 | FET 2SK1082-01 | | | |
| | | < RESISTOR > | | | |
| ⚠R001 | 1-214-930-11 | METAL GLAZE | 510K | 1% | 1/2W |
| ⚠R002 | 9-906-814-01 | FUSIBLE RESISTOR | 10 | | 1.6W |
| R003 | 1-249-417-11 | CARBON | 1K | 5% | 1/2W |
| R004 | 9-906-815-01 | METAL GLAZE | 51 | | 1W |
| ⚠R005 | 1-215-861-00 | METAL GLAZE | 47 | 5% | 1W |
| ⚠R006 | 1-215-904-11 | METAL GLAZE | 100K | 5% | 2W |
| ⚠R007 | 1-215-904-11 | METAL GLAZE | 100K | 5% | 2W |
| ⚠R008 | 1-220-388-11 | METAL GLAZE | 68K | 5% | 1W |
| ⚠R009 | 1-215-904-11 | METAL GLAZE | 100K | 5% | 2W |
| R010 | 9-906-816-01 | CEMENT RESISTOR | 0.22 | | 5W |
| R011 | 1-247-855-31 | CARBON | 10K | 5% | 1/4W |
| R012 | 1-249-433-11 | CARBON | 22K | 5% | 1/4W |
| R013 | 1-249-391-11 | CARBON | 6.8 | 5% | 1/4W |
| R014 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W |
| R015 | 1-215-861-00 | METAL GLAZE | 47 | | 1W |
| R016 | 1-249-385-11 | CARBON | 2.2 | 5% | 1/4W |
| R017 | 1-247-862-11 | CARBON | 20K | 5% | 1/4W |
| R018 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W |
| R019 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R020 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| ⚠R021 | 1-215-882-11 | METAL GLAZE | 22 | 5% | 2W |
| ⚠R022 | 1-215-882-11 | METAL GLAZE | 22 | 5% | 2W |
| ⚠R023 | 1-215-892-11 | METAL GLAZE | 1K | 5% | 2W |
| R024 | 1-247-843-31 | CARBON | 3.3K | 5% | 1/4W |
| ⚠R025 | 1-215-882-11 | METAL GLAZE | 22 | 5% | 1/4W |
| ⚠R026 | 1-215-882-11 | METAL GLAZE | 22 | 5% | 1/4W |
| ⚠R027 | 1-215-892-11 | METAL GLAZE | 1K | 5% | 2W |
| R028 | 9-906-817-01 | CEMENT RESISTOR | 3.9 | | 2.1W |
| R029 | 9-906-818-01 | CEMENT RESISTOR | 3.9 | | 2.1W |
| R030 | 1-247-839-31 | CARBON | 2.2K | 5% | 1/4W |
| ⚠R031 | 1-216-358-11 | METAL GLAZE | 5.6 | 5% | 1W |
| ⚠R032 | 1-216-360-11 | METAL GLAZE | 8.2 | 5% | 1W |
| ⚠R033 | 1-215-452-11 | METAL GLAZE | 180 | 5% | 2W |
| R034 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R035 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| ⚠R036 | 1-216-378-11 | METAL GLAZE | 5.6 | 5% | 2W |
| ⚠R037 | 1-216-380-11 | METAL GLAZE | 8.2 | 5% | 2W |
| R038 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R039 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R040 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W |
| R041 | 1-247-807-31 | CARBON | 100 | 5% | 1/4W |
| R042 | 1-249-397-11 | CARBON | 22 | 5% | 1/4W |
| R044 | 1-249-403-11 | CARBON | 68 | 5% | 1/4W |
| R045 | 1-247-809-31 | CARBON | 120 | 5% | 1/4W |
| R046 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R047 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| | | < SWITCH > | | | |
| ⚠SW001 | 1-692-728-11 | SWITCH | | | |
| | | < TRANSFORMER > | | | |
| ⚠T001 | 9-907-313-01 | TRANSFORMER, SWITCHING | | | |
| | | < THERMOSTAT > | | | |
| ⚠TS001 | 9-906-839-01 | THERMOSTAT | | | |
| | | < VARIABLE RESISTOR > | | | |
| VR001 | 9-906-819-01 | VARIABLE RESISTOR 300 | | | |

**********

MISCELLANEOUS
**********

| | | |
|---|---|---|
| 10 | 1-541-684-31 | MOTOR, DC |
| 14 | 1-751-565-11 | CABLE, FLAT (FRS-14) |
| 58 | 1-751-566-11 | CABLE, FLAT (FKK-1) |
| 59 | 1-751-568-11 | CABLE, FLAT (FKK-2) |
| 96 | 1-520-503-11 | METER UNIT, LED LEVEL |
| 97 | 1-562-148-11 | HOUSING, 3P |
| 98 | 1-467-473-11 | KEYBOARD BLOCK |
| * 116 | 1-633-548-13 | PTC-39 BOARD |
| 120 | 1-562-151-11 | HOUSING, 6P |
| 156 | 1-237-127-11 | RES, VAR, CARBON 5K |

**********

ACCESSORIES & PACKING MATERIALS
**********

| | | |
|---|---|---|
| ⚠ | 1-590-910-11 | CORD SET, POWER |
| | 3-757-628-11 | MANUAL, INSTRUCTION (ENGLISH) |
| | 3-757-628-31 | MANUAL, INSTRUCTION (FRENCH) |
| | 3-757-628-41 | MANUAL, INSTRUCTION (GERMANY) |
| | 3-757-632-11 | MANUAL, INSTRUCTION (PRIMER) (ENGLISH) |
| | 3-757-632-31 | MANUAL, INSTRUCTION (PRIMER) (FRENCH) |
| | 3-757-632-41 | MANUAL, INSTRUCTION (PRIMER) (GERMANY) |
| * | 3-957-092-01 | CUSHION (UPPER) |
| * | 3-957-093-01 | CUSHION (LOWER) |
| * | 3-957-094-11 | INDIVIDUAL CARTON |

**********



**Note:** The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|

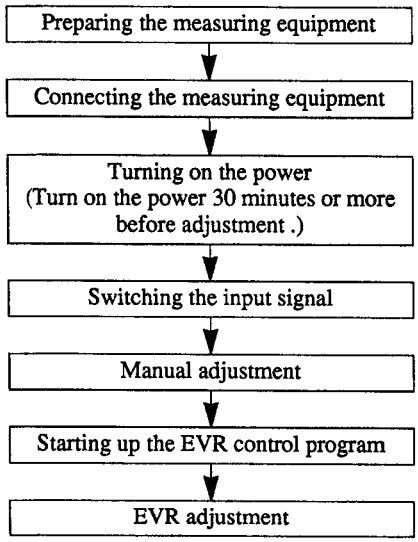
**********
**HARDWARE LIST**
**********

| | | | |
|---|---|---|---|
| #1 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 IT-3 | |
| #2 | 7-685-648-79 | SCREW +BVTP 3X12 TYPE2 SLIT | |
| #3 | 7-621-592-00 | SCREW +K 2.6X6 | |
| #4 | 7-624-108-04 | STOP RING 4.0, TYPE -E | |
| #5 | 7-623-924-01 | WASHER 3.0, NYLONE | |
| #6 | 7-621-731-08 | SET-SCT, HEX. 2X2.5, FLAT POINT | |
| #7 | 7-682-545-09 | SCREW +B 3X4 | |
| #8 | 7-682-646-09 | SCREW +PS 3X5 | |
| #9 | 7-688-003-12 | W 3, MIDDLE | |
| #10 | 7-623-710-47 | WASHER 8, WABE TYPE | |
| #11 | 7-682-553-04 | SCREW +P 3X20 | |
| #12 | 7-685-134-19 | SCREW +P 2.6X8 TYPE2 NON-SLIT | |
| #13 | 7-685-647-79 | SCREW +BVTP 3X10 TYPE2 IT-3 | |

# SECTION 8
# ELECTRICAL ADJUSTMENTS

## 8-1. OUTLINE

Adjust as follows:



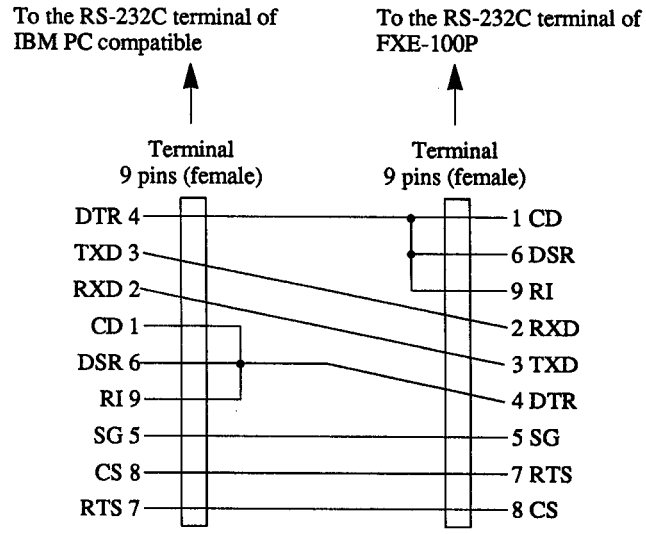

## 8-2. PREPARING THE MEASURING EQUIPMENT

### 8-2-1. Measuring Equipment and Tools Neededes

The following measuring equipment is necessary for making adjustments:

- Pattern generator
  which has the following three functions:
  i. S VIDEO terminal
  ii. White raster (100% white) output. (Refer to the next subsection, "8-2-2. Note on Measuring Equipment and Tools".)
  iii. Circle (monoscope) output
- Oscilloscope
- Vector scope
- 75 Ω terminator
- Monitor TV
- A personal computer (IBM PC compatible and MS-DOS)
- EVR control program (Refer to the next subsection, "8-2-2. Note on Measuring Equipment and Tools".)
- Adjusting disk: EVR control disk (J-6082-280-A)
- The floppy disk contains the programs for IBM PC compatible. (Refer to the next subsection, "8-2-2. Note on Measuring Equipment and Tools".)
- Exclusive RS-232C cable
  Sony RS-232C cable (1.5m cross cable) (PTA-909C)

Pin connections in the cable



### 8-2-2. Note on Measuring Equipment and Tools

Before adjustment, check the followings:

- Directly input the signals from the pattern generator to the waveform monitor or vector scope to check that the 100% white level and the color vectors are correct.
- Turn on the power of the measuring equipment 30 minutes or more before use.
- Do not use the original EVR control disk. Be sure to make a backup copy and use the backup copy disk for the adjustment.

## 8-3. CONNECTING THE MEASURING EQUIPMENT

Connect the measuring equipment as shown in the following tables:

Input to the unit

| Input to the unit | | Input signal |
|---|---|---|
| PLAYER 1 | S VIDEO | CB |
| | VIDEO | — |
| PLAYER 2 | S VIDEO | — |
| | VIDEO | CB |
| AUX 1 | S VIDEO | — |
| | VIDEO | CIRCLE |

Output from the unit

| Output terminal | Measuring equipment |
|---|---|
| PGM 1 | Oscilloscope<br>Vector scope<br>(terminated at 75 Ω) |
| MONITOR | Monitor TV |
| EDL IN/OUT | IBM PC compatible<br>(RS-232C or COM terminal) |

- **Service mode setting**
  (Timer counter display panel DP-46 board)

1) Press the SCREEN key (S904) in the SCREEN (monitor screen select) block to display the menu.
2) While pressing the Jog/Shuttle dial, press the three RESET keys simultaneously.

| | | | |
|---|---|---|---|
| PLAYER 1 | RESET key | (S916) | } Press down simultaneously. |
| PLAYER 2 | RESET key | (S915) | |
| RECORDER | RESET key | (S917) | |

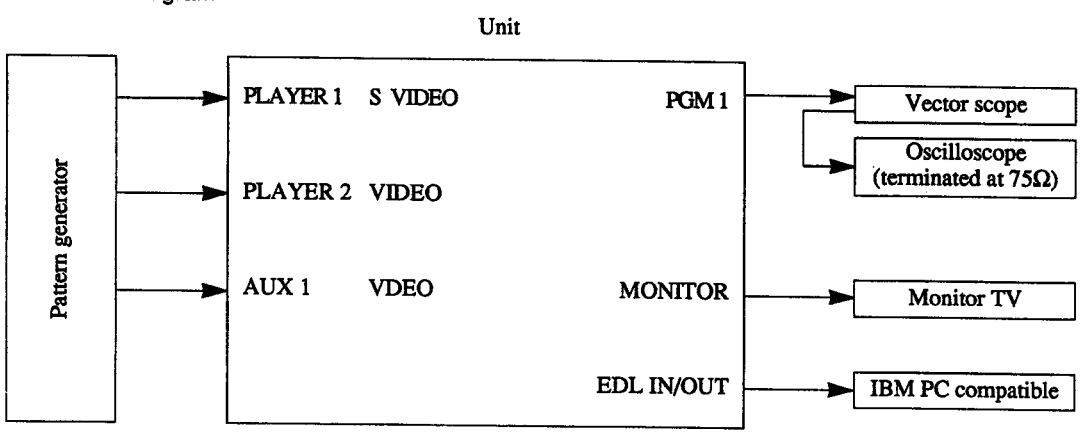
3) The service menu appears on the monitor TV.
   Press SET to Adjust.

```
*
  SERVICE
    ITEM-101
  EVR DATA ADJUST

  RS-232C          GO
       EXIT POWER OFF
```

4) Canceling the service mode
   Turn off the power switch (SW1) to cancel service mode.

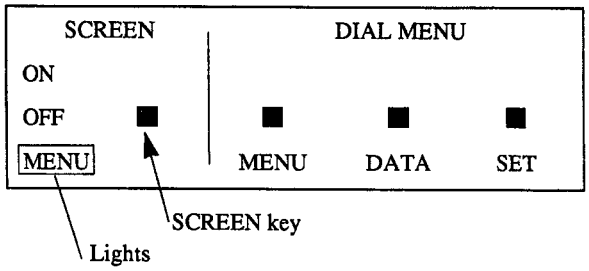
Connection diagram



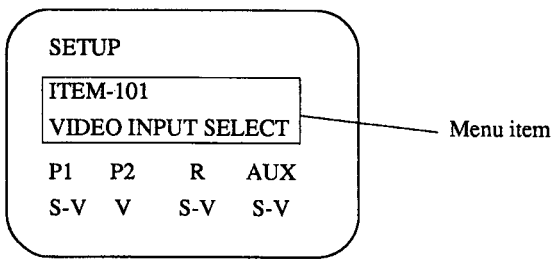
## 8-4. SWITCHING THE INPUT SIGNAL

Perform the following steps to set PLAYER 1 to S VIDEO, PLAYER 2 to VIDEO and AUX 1 to VIDEO.

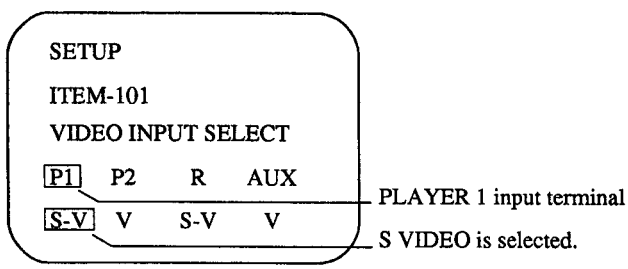
1) Turn on the power of the unit, measuring equipment and monitor TV.
2) Press the SCREEN key to enter the MENU mode. MENU will light.



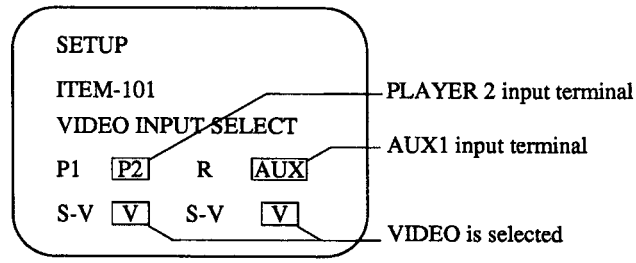

3) Push in the JOG SHUTTLE dial to enter JOG mode. The monitor TV displays a menu item.
4) Rotate the JOG dial while holding down the MENU key and display ITEM-101 (VIDEO INPUT SELECT) in the menu item.




5) (Without pressing the MENU key) rotate the JOG dial so that V (VIDEO) or S-V (S VIDEO) flashes under P1 (PLAYER 1). This operation allows the input signal of P1 (PLAYER 1) to be switched.
6) Rotate the JOG dial while holding down the DATA key to select S-V (S VIDEO) for P1 (PLAYER 1).
7) Press the SET key.
The input signal of P1 (PLAYER 1) is switched to S-V (S VIDEO). The selected data is stored.




8) Select for P2 (PLAYER 2) and AUX (AUX 1) in the same manner as steps 5 and 7, however instead select V (VIDEO) in step 6.




9) Press the SCREEN key to switch to the ON mode or OFF mode.

## 8-5. MANUAL ADJUSTMENT

Adjust each adjusting element while referring to "8-8. ADJUSTMENT PARTS ARRANGEMENT DIAGRAM" described later.

Note: Do not use an ordinary screwdriver on the elements. Use only the adjustment screwdrivers.

### 8-5-1. DV-19 4fsc Adjustment

Adjustment Purpose: To determine the oscillation frequency (sub carrier fo) which becomes the master.

Adjustment Error Symptom: After editing, the color fades or becomes rainbow-colored, or the picture runs horizontally.

| | |
|---|---|
| Signal | INPUT: CB (PLAYER 1, S VIDEO) |
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1 |
| Measurement Point | TP503, IC532 pin ③ |
| Measuring Equipment | Frequency counter |
| Adjusting Element | CV502 |
| Specified Value | 17.734476±0.00002MHz<br>(Adjust the value nearest to the center.) |

### 8-5-2. MM27A Write APC Adjustment

Adjustment Purpose: To adjust the position to write data to the memory.

Adjustment Error Symptom: The picture runs horizontally.

| | |
|---|---|
| Signal | INPUT: No signal |
| Panel Operation | A-BUS: No signal<br>B-BUS: No signal |
| Measurement Point | TP1, IC181 pin ㉜ |
| Measuring Equipment | Frequency counter |
| Adjusting Element | CV171 |
| Specified Value | 17.734476±0.00002MHz<br>(Adjust the value nearest to the center.) |

### 8-5-3. MM27B Write APC Adjustment

Adjustment Purpose: To adjust the position to write data to the memory.

Adjustment Error Symptom: The picture runs horizontally.

| | |
|---|---|
| Signal | INPUT: No signal |
| Panel Operation | A-BUS: No signal<br>B-BUS: No signal |
| Measurement Point | TP1, IC181 pin ㉜ |
| Measuring Equipment | Frequency counter |
| Adjusting Element | CV171 |
| Specified Value | 17.734476±0.00002MHz<br>(Adjust the value nearest to the center.) |

### 8-5-4. MM27A Write AFC Adjustment

Adjustment Purpose:

Adjustment Error Symptom:

| | |
|---|---|
| Signal | INPUT: CB (PLAYER 1, S VIDEO) |
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1 |
| Measurement Point | TP131, IC131 pin ⑪ |
| Measuring Equipment | Digital Voltmeter |
| Adjusting Element | CV131 |
| Specified Value | 2.2±0.1 V<br>(Adjust the value nearest to the center.) |

### 8-5-5. MM27B Write AFC Adjustment

Adjustment Purpose:

Adjustment Error Symptom:

| | |
|---|---|
| Signal | INPUT: CB (PLAYER 1, S VIDEO) |
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1 |
| Measurement Point | TP131, IC131 pin ⑪ |
| Measuring Equipment | Digital Voltmeter |
| Adjusting Element | CV131 |
| Specified Value | 2.2±0.1 V<br>(Adjust the value nearest to the center.) |

## 8-6. STARTING UP THE EVR CONTROL PROGRAM

1) Turn on the power of the IBM PC compatible.
2) Start up the MS-DOS.
3) Insert the EVR control disk in the floppy disk drive.

   Note: First engage the tab of the floppy disk to write-protect to avoid deleting programs or data from the floppy disk.

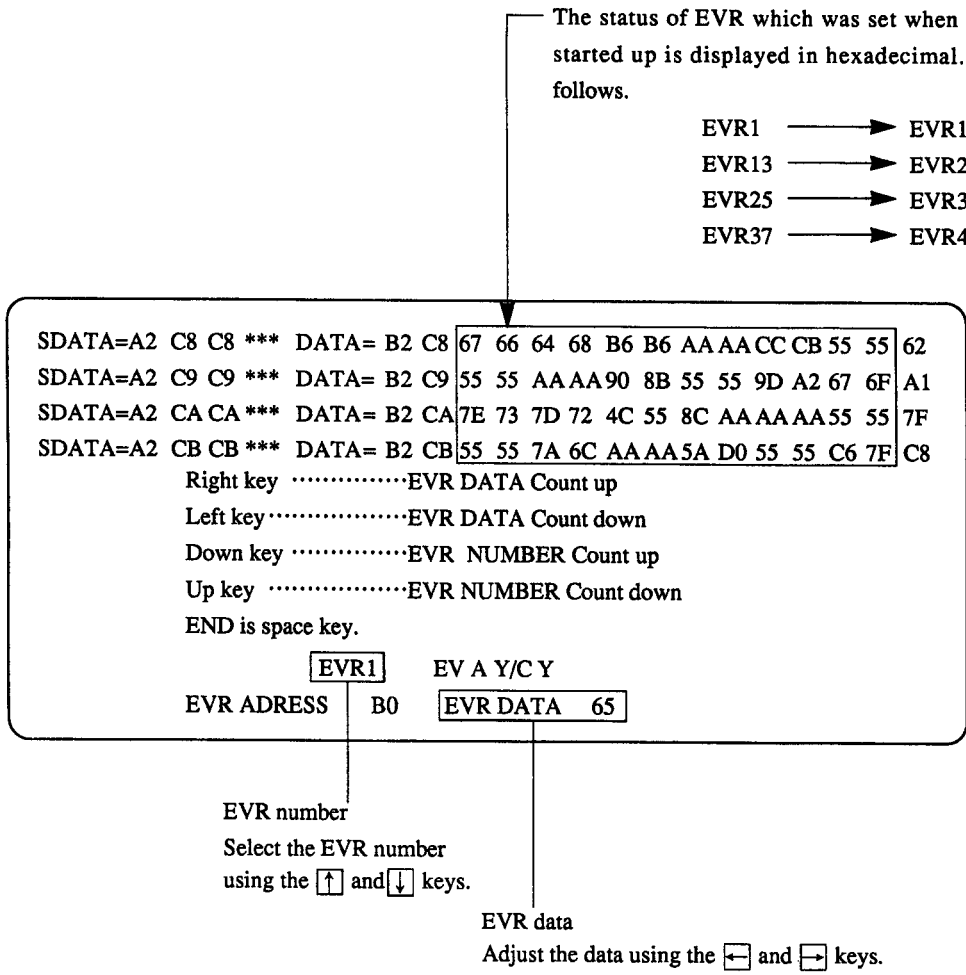
4) Type "IBM" and press the RETURN key to start up the EVR control program.
   The following shows an example of inserting the floppy disk into the drive A:

```
C>A:↵
A>IBM↵
```

5) The following screen appears. Check that the exclusive RS-232C cable is connected and press the RETURN key.

```
Please connect RS-232C cable, and please push space key!
```

6) The EVR setting screen appears.




Note 1: When adjusting the EVR data, do not continuously hold down the ← or → key, press the ← or → key repeatedly.

Note 2: When E2-PROM of IC709 or 710 has been replaced, set EVR48 to 7F. When 7F is not set, data in the IC is effective.

7) Perform the adjustments according to the next subsection, "8-7. EVR ADJUSTMENT"

8) When all the adjustments are completed, press the space bar. The EVR control program ends and the MS-DOS prompt will appear.

## 8-7. EVR ADJUSTMENT

Adjust each EVR using the cursor keys. See "ADJUSTMENT PARTS ARRANGEMENT DIAGRAM" described later for the test points.

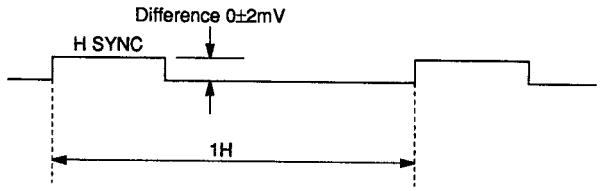
### 8-7-1. Fader A DC Level Adjustment

Adjustment Purpose: To adjust the balance of the black level of the picture.

Adjustment Error Symptom: The black level is not the same between the A-BUS and B-BUS.

**Note:** Adjust the black level balance of B-BUS as described in the next subsection "Fader B DC Level Adjustment". Avoid adjusting the balance of A-BUS in this "Fader A DC Level Adjustment" if possible.

| Signal | INPUT: CB (PLAYER 1, S VIDEO) |
|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ■<br>EFFECT TRANSITION LEVER: A-BUS |
| Measurement Point | CL628 (Q613(E)) |
| Measuring Equipment | Oscilloscope (range AC) |
| Adjusting Element | EVR 23 (EV A FDC) |
| Standard Setting | 67 |
| Specified Value | Difference 0±2 mV |

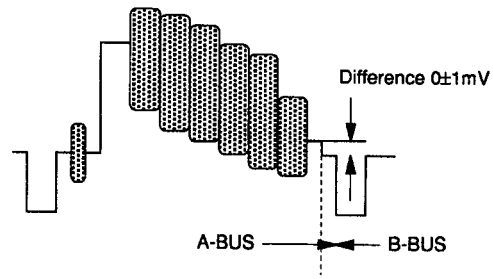



### 8-7-2. Fader B DC Level Adjustment

Adjustment Purpose: To adjust the balance of the black level of the picture.

Adjustment Error Symptom: The black level is not the same between the A-BUS and B-BUS.

| Signal | INPUT: CB (PLAYER 1, S VIDEO) |
|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ■<br>EFFECT TRANSITION LEVER: Adjust so that the center of the black bar of CB is wiped. |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Oscilloscope |
| Adjusting Elemen | EVR 24 (EV B FDC) |
| Standard Setting | 6F |
| Specified Value | Difference 0±1 mV |

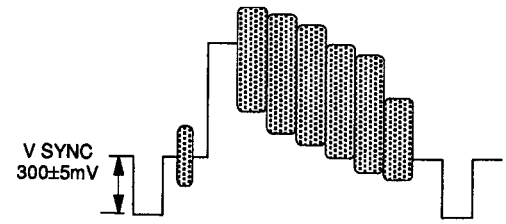



### 8-7-3. Sync Level Adjustment

Adjustment Purpose: To adjust the sync level.

Adjustment Error Symptom: The brightness of the screen varies due to changes in the sync length.

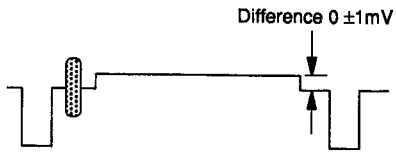
| Signal | INPUT: CB (PLAYER 1, S VIDEO) |
|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ■<br>EFFECT TRANSITION LEVER: A-BUS |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Oscilloscope |
| Adjusting Elemen | EVR 31 (EV SYNCLEV) |
| Standard Setting | 8C |
| Specified Value | V SYNC 300±5mV |



### 8-7-4 Set Up Level Adjustment

Adjustment Purpose: To adjust the set up to 0.
Adjustment Error Symptom: Black seems to float on the screen.

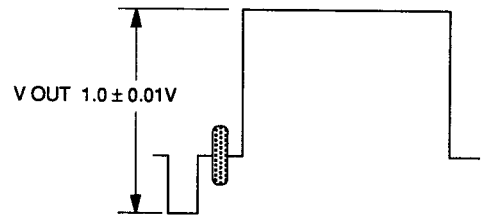
| | |
|---|---|
| Signal | INPUT: No input |
| Panel Operation | MIX/EFFECT: NORMAL MIX<br>EFFECT TRANSITION LEVER: A-BUS<br>Press the BLACK FADE.<br>(The indicator flashes.) |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Oscilloscope |
| Adjusting Elemen | EVR 29 (EV SET UP) |
| Standard Setting | 4C |
| Specified Value | Difference 0±1 mV |




### 8-7-5. Read A Y Level Adjustment

Adjustment Purpose: To adjust the Y level read from the A-BUS memory.
Adjustment Error Symptom: The background white is not correctly displayed when white is selected as the background color of the A-BUS.

| | |
|---|---|
| Signal | INPUT: CB (PLAYER 1, S VIDEO) |
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ◻■<br>EFFECT TRANSITION LEVER: A-BUS<br>100% white is selected as the background color of the A-BUS and B-BUS. |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Oscilloscope |
| Adjusting Elemen | EVR 5 (EV A RY) |
| Standard Setting | B6 |
| Specified Value | V OUT 1.0±0.01V |

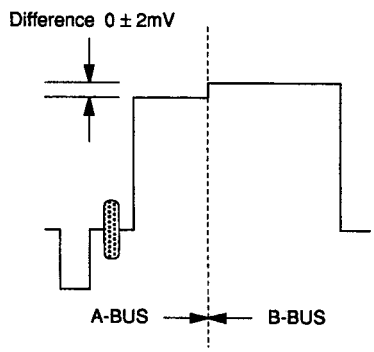


### 8-7-6. Read B Y Level Adjustment

Adjustment Purpose: To adjust the Y level read from the B-BUS memory.

Adjustment Error Symptom: The background white is not correctly displayed when white is selected as the background color of the B-BUS.

| Signal | INPUT: CB (PLAYER 1, S VIDEO) |
|---|---|
| Panel Operation | Switch the pattern generator output to the white raster.<br>A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ■<br>EFFECT TRANSITION LEVER: Wipe the A-BUS and B-BUS in the middle of the screen.<br>Background color: A-BUS and B-BUS are white. |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Oscilloscope |
| Adjusting Elemen | EVR 6 (EV B RY) |
| Standard Setting | B6 |
| Specified Value | Difference 0±2 mV |

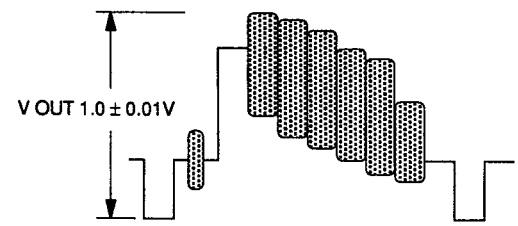



### 8-7-7. Write A Y Level Adjustment

Adjustment Purpose: To adjust the Y level written to the A-BUS memory.

Adjustment Error Symptom: Even if white is correctly displayed as the background color of the A-BUS, white is not correctly displayed when a picture is input.

| Signal | INPUT: CB (PLAYER 1, S VIDEO) |
|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ■<br>EFFECT TRANSITION LEVER: A-BUS |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Oscilloscope |
| Adjusting Elemen | EVR 3 (EV A WY) |
| Standard Setting | 64 |
| Specified Value | V OUT 1.0±0.01V |

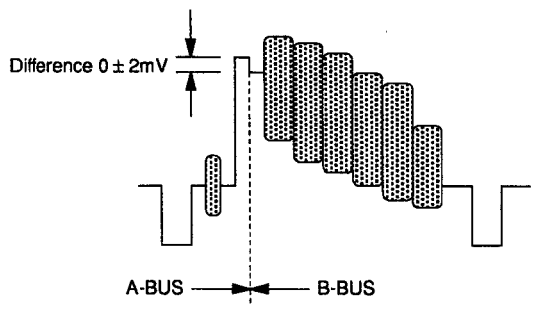


### 8-7-8. Write Y Level Balance Adjustment

Adjustment Purpose: To adjust the Y level written to the B-BUS memory.

Adjustment Error Symptom: Even if white is correctly displayed as the background color of the B-BUS, white is not correctly displayed when a picture is input.

| Signal | INPUT: CB (PLAYER 1, S VIDEO) |
|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ◨<br>EFFECT TRANSITION LEVER: Wipe the A-BUS and B-BUS in the middle of the white bar. |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Oscilloscope |
| Adjusting Elemen | EVR 4 (EV B WY) |
| Standard Setting | 68 |
| Specified Value | Difference 0±2 mV |

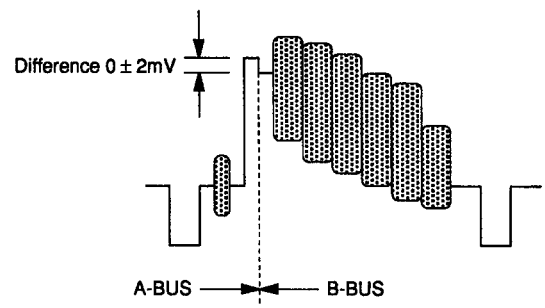



### 8-7-9. Y/C SEP A Y Level Adjustment

Adjustment Purpose: To adjust the Y level written to the A-BUS memory when a composite signal is input.

Adjustment Error Symptom: The Y level of the A-BUS is not correctly output when a composite signal is input.

| Signal | INPUT: CB (PLAYER 2, VIDEO)<br>INPUT: CB (PLAYER 1, S VIDEO) |
|---|---|
| Panel Operation | A-BUS: PLAYER 2<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ◨<br>EFFECT TRANSITION LEVER: Wipe the A-BUS and B-BUS in the middle of the white bar. |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Oscilloscope |
| Adjusting Elemen | EVR 1 (EV A Y/C Y) |
| Standard Setting | 67 |
| Specified Value | Difference 0±2 mV |

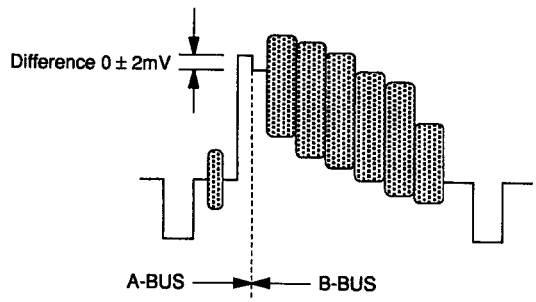


### 8-7-10. Y/C SEP B Y Level Balance Adjustment

Adjustment Purpose: To adjust the Y level written to the B-BUS memory when a composite signal is input.

Adjustment Error Symptom: The Y level of the B-BUS is not correctly output when a composite signal is input.

| | |
|---|---|
| Signal | INPUT: CB (PLAYER 2, VIDEO) |
| Panel Operation | A-BUS: PLAYER 2<br>B-BUS: PLAYER 2<br>WIPE PATTERN: ◧<br>EFFECT TRANSITION LEVER:<br>Wipe in the middle of the white bar. |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Oscilloscope |
| Adjusting Elemen | EVR 2 (EV B Y/C Y) |
| Standard Setting | 66 |
| Specified Value | Difference 0±2 mV |

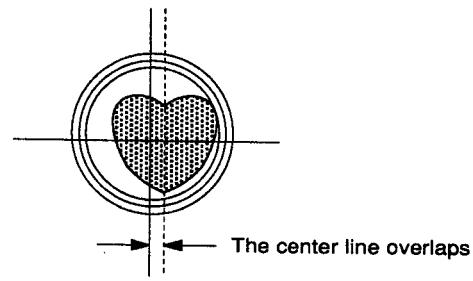



### 8-7-11. A HCENT Adjustment

Adjustment Purpose: To align the center of the A-BUS display with the center of the input picture.

Adjustment Error Symptom: The input picture is shifted from the center, or the right and left sides of the display turn black.

| | |
|---|---|
| Signal | INPUT: CIRCLE (AUX 1)<br>A-BUS: AUX<br>B-BUS: AUX (BACKGROUND: BLACK) |
| Panel Operation | WIPE PATTERN: ♥<br>EFFECT TRANSITION LEVER:<br>Display the heart-shaped pattern in the middle of the screen. |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Monitor |
| Adjusting Elemen | EVR 9 (EV A HCENT) |
| Standard Setting | CC |
| Specified Value | The center line of the circle overlaps with the center line of the heart-shaped pattern. |

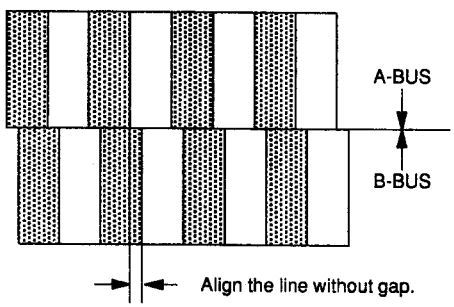


### 8-7-12. B HCENT Balance Adjustment

Adjustment Purpose: To align the center of the B-BUS screen with the center of the A-BUS screen.

Adjustment Error Symptom: When the A-BUS signal is the same as the B-BUS signal, the screen is moved right or left using the effect transition lever.

| Signal | INPUT: CB (PLAYER 2, VIDEO) |
|---|---|
| Panel Operation | A-BUS: PLAYER 2<br>B-BUS: PLAYER 2<br>WIPE PATTERN: ▬<br>EFFECT TRANSITION LEVER: Wipe in the middle of the display. |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Monitor |
| Adjusting Elemen | EVR 10 (EV B HCENT) |
| Standard Setting | CB |
| Specified Value | The vertical lines are aligned without gaps. |

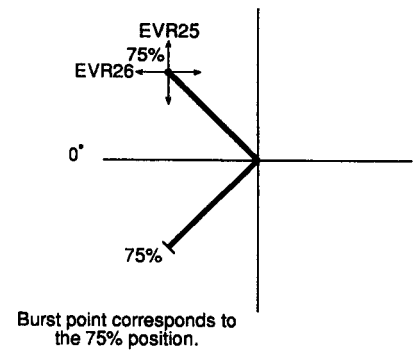



### 8-7-13. Burst Level Adjustment

Adjustment Purpose: To adjust the color burst level.

Adjustment Error Symptom: Color depth of the VCR picture etc. varies depending on whether the signal passes through the unit.

| Signal | INPUT: CB (PLAYER 1, S VIDEO) | |
|---|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ◨<br>EFFECT TRANSITION LEVER: A-BUS | |
| Measurement Point | Video picture of PGM1 | |
| Measuring Equipment | Vector scope | |
| Adjusting Elemen | EVR 25 (EV BST R) | EVR 26 (EV BST B) |
| Standard Setting | 7E | 73 |
| Specified Value | 75% Position | |



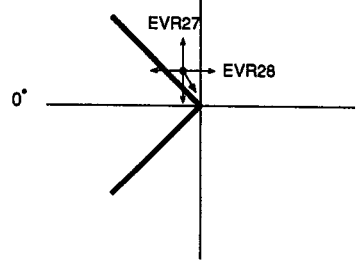
### 8-7-14. A White Balance Adjustment

Adjustment Purpose: To adjust the white balance of the A-BUS.

Adjustment Error Symptom: White parts are slightly colored.

| Signal | INPUT: CB (PLAYER 1, S VIDEO) | |
|---|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ▢■<br>EFFECT TRANSITION LEVER: A-BUS | |
| Measurement Point | Video picture of PGM1 | |
| Measuring Equipment | Vector scope | |
| Adjusting Elemen | EVR 27 (EV PLSA R) | EVR 28 (EV PLSA B) |
| Standard Setting | 7D | 72 |
| Specified Value | The luminous point comes to the center when the vector gain is maximized | |

Bring the luminous point to the center using EVR27 and EVR28.



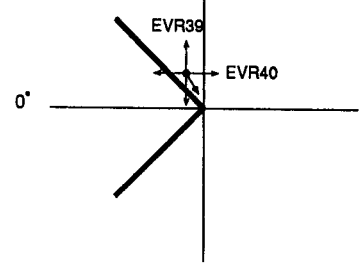

### 8-7-15. B White Balance Adjustment

Adjustment Purpose: To adjust the white balance of the B-BUS.

Adjustment Error Symptom: White parts are slightly colored.

| Signal | INPUT: CB (PLAYER 1, S VIDEO) | |
|---|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ▢■<br>EFFECT TRANSITION LEVER: B-BUS | |
| Measurement Point | Video picture of PGM1 | |
| Measuring Equipment | Vector scope | |
| Adjusting Elemen | EVR 39 (EV PLSB R) | EVR 40 (EV PLSB R) |
| Standard Setting | 7A | 6C |
| Specified Value | The luminous point comes to the center when the vector gain is maximized. | |

Bring the luminous point to the center using EVR39 and EVR40.



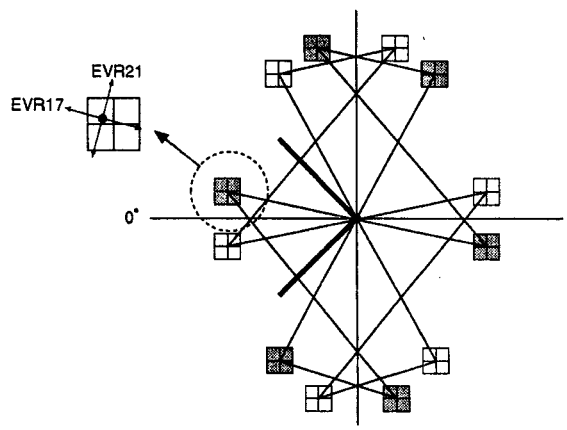
### 8-7-16. A Read Chroma Adjustment

Adjustment Purpose: To adjust the color levels and color phases of the A-BUS.

Adjustment Error Symptom: Some colors have different shades or phases.

| Signal | INPUT: CB (PLAYER 1, S VIDEO) | |
|---|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ◨<br>EFFECT TRANSITION LEVER: A-BUS | |
| Measurement Point | Video picture of PGM1 | |
| Measuring Equipment | Vector scope | |
| Adjusting Elemen | EVR 21 (EV A HUE) | EVR 17 (EV A RC) |
| Standard Setting | 9D | 90 |
| Specified Value | The luminous point of each color comes to the center of the four squares. | |

Bring the luminous point of each color into the center of the four squaresusing EVR21 and EVR17.
(Bring the luminous point into the standard luminous point frames of the vector scope.)

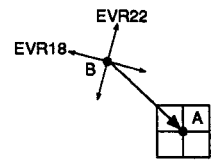



### 8-7-17. B Read Chroma Adjustment

Adjustment Purpose: To adjust the color levels and color phases of the B-BUS.

Adjustment Error Symptom: Some colors have different shades or phases.

| Signal | NPUT: CB (PLAYER 1, S VIDEO) | |
|---|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ▬<br>EFFECT TRANSITION: At the center | |
| Measurement Point | Video picture of PGM1 | |
| Measuring Equipment | Video picture of PGM1 | |
| Adjusting Elemen | EVR 22 (EV B HUE) | EVR 18 (EV B RC) |
| Standard Setting | A2 | 8B |
| Specified Value | The B read chroma luminous point overlaps with the A read chroma luminous point of the previous subsection. | |



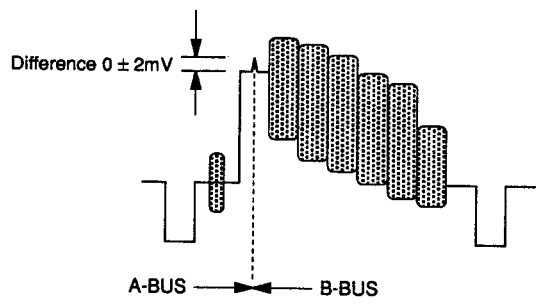

The B read chroma luminous point overlaps with the A read chroma luminous point.

### 8-7-18. Soft Border Level Adjustment

Adjustment Purpose: To adjust the levels of the A-BUS and B-BUS borders when the soft border is selected.

Adjustment Error Symptom: The brightnesses of the A-BUS and B-BUS borders are different.

| Signal | INPUT: CB (PLAYER 1, S VIDEO) |
|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ◨<br>PATTERN EDGE: SOFT<br>EFFECT TRANSITIONEFFECT<br>TRANSITION LEVER: Wipe in the center of the white bar. |
| Measurement Point | Video picture of PGM1 |
| Measuring Equipment | Oscilloscope |
| Adjusting Elemen | EVR 47 (EV SB ADJ) |
| Standard Setting | C6 |
| Specified Value | Difference 0±2 mV (Reduce the difference as much as possible.) |

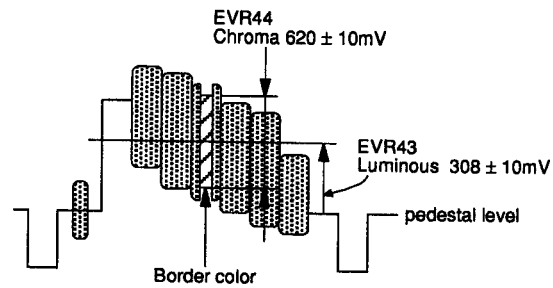



### 8-7-19. Border Color Y/C Level Adjustment

Adjustment Purpose: To adjust the YC level of the color border.

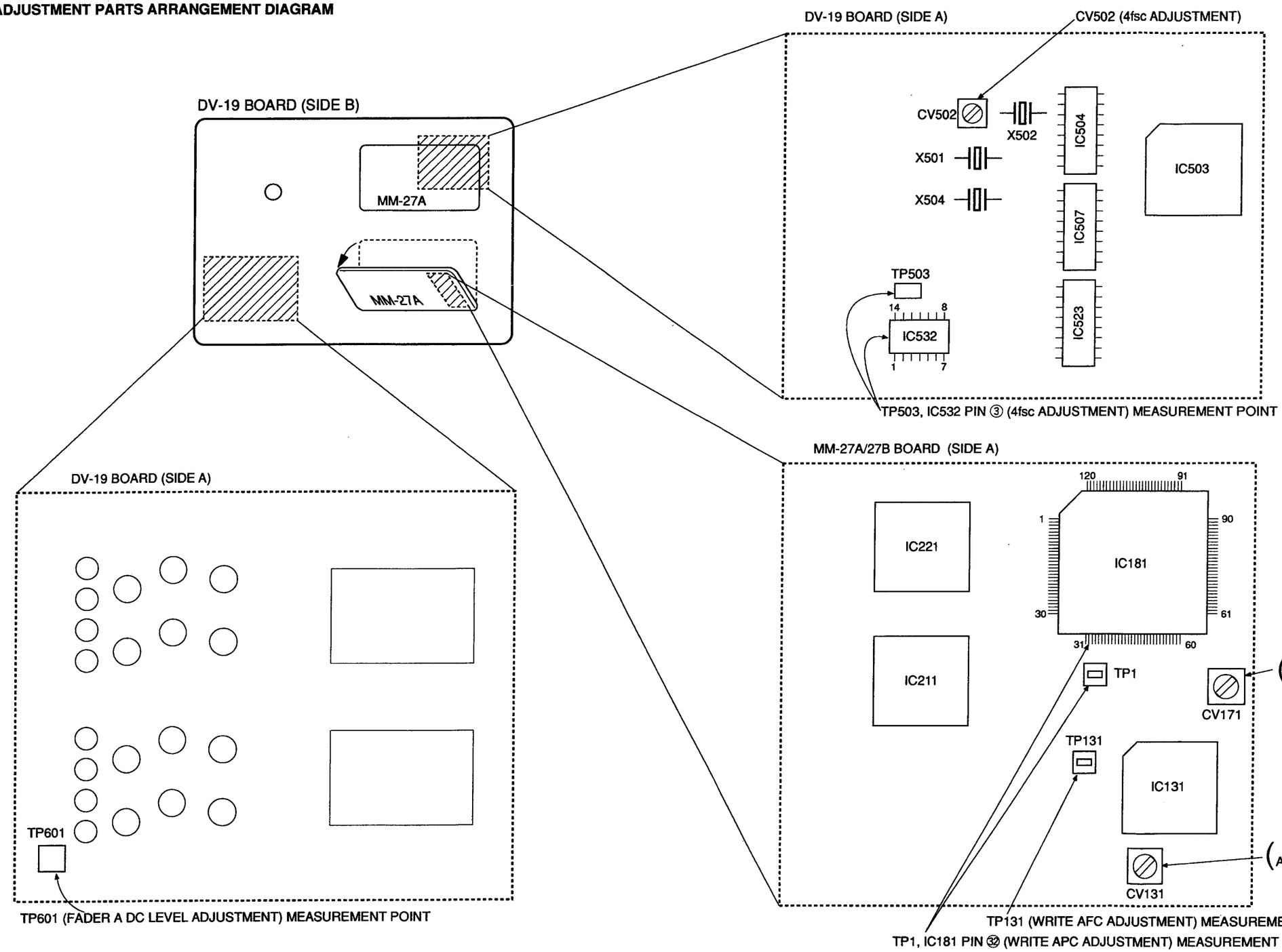
Adjustment Error Symptom: The YC level of the border of the color border wipe changes.

| Signal | INPUT: CB (PLAYER 1, S VIDEO) | |
|---|---|---|
| Panel Operation | A-BUS: PLAYER 1<br>B-BUS: PLAYER 1<br>WIPE PATTERN: ◨<br>PATTERN EDGE: BORDER<br>BORDER COLOR: LIGHT GREEN | |
| Measurement Point | Video picture of PGM1 | |
| Measuring Equipment | Oscilloscope | |
| Adjusting Elemen | EVR 43 (EV BC Y) | EVR 44 (EV BC C ADJ) |
| Standard Setting | 5A | D0 |
| Specified Value | Luminous 308±10 mV | Chroma 620±10 mV |




- The color bar signal and the border color signal are difficult to discremenate the border line between them. Move the WIPE position herizontally and confirm the border line.
- EVR43 (Luminance Adj.) sets the Y-level of the border color signal above the pedestal level.
- EVR44 (Chroma Adj.) sets the chroma level of the border color signal.

## 8-8. ADJUSTMENT PARTS ARRANGEMENT DIAGRAM



# FXE-100P

SONY

# SERVICE MANUAL

*AEP Model*
*UK Model*
*E Model*

## CORRECTION-1

Please correct your service manual.

| page | INCORRECT | | | | CORRECT | | | |
|---|---|---|---|---|---|---|---|---|
| | Ref. No. | Part No. | Description | Remarks | Ref. No. | Part No. | Description | Remarks |
| 6-2 | 52 | 3-957-769-01 | SET, KEY TOP | | * 52 | 1-467-473-11 | KY-22 BOARD | |
| | * 54 | 1-649-632-11 | KY-22 BOARD | | 54 | This part is not supplied. | | |
| | 98 | 1-467-473-11 | KEYBOARD BLOCK | | 98 | 3-957-769-02 | SET, KEY TOP | |
| 7-35 | * | 1-649-632-11 | KY-22 BOARD | | * | 1-467-473-11 | KY-22 BOARD | |

9-973-583-91

**Sony Corporation**
**Consumer A&V Products Company**
**Personal A&V Products Div.**

**Published by Personal A&V Products Div.**
**Quality Engineering Dept.**

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# SERVICE MANUAL

*AEP Model*
*UK Model*
*E Model*

## SUPPLEMENT-1

File this supplement with the Service Manual.

**Subject : Change of Printed Wiring Boards**

- The following two printing wiring boards are changed.

| Before Change | After Change |
|---|---|
| AM-32 BOARD (A-7063-835-A) | AM-36 BOARD (A-7066-652-A) |
| AS-46 BOARD (A-7063-833-A) | AS-46P BOARD (A-7066-664-A) |

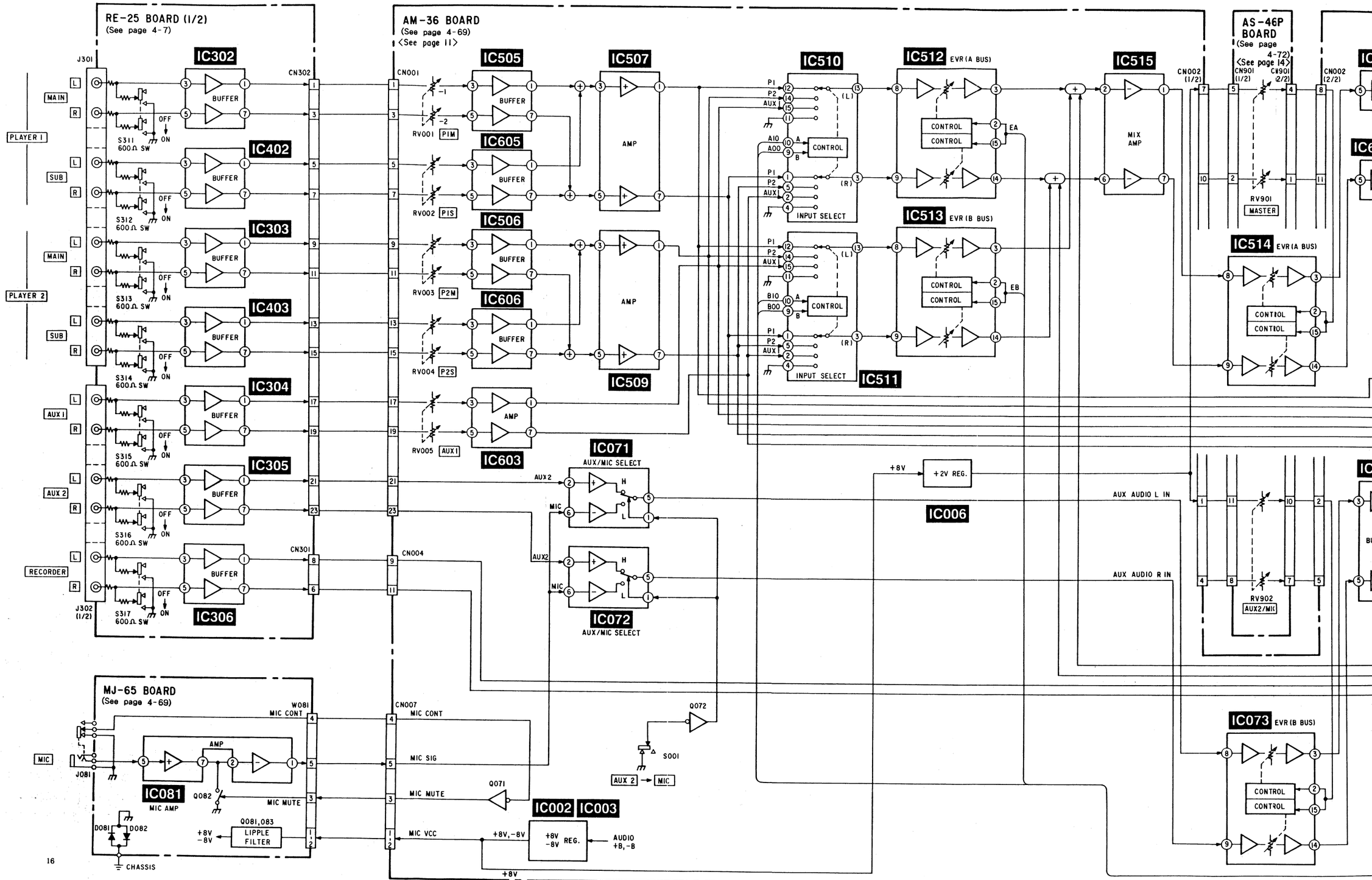
- Because these two boards are changed, the Block Diagram, Printed Wiring Board, Schematic Diagram and Electrical Parts List are also changed and added herewith.

Note :
"See page" indicates the page of the block diagrams and schematic diagrams to be referred to.

(See page) : If "See page" is in the round parenthesis ( ), refer to the Service Manual.

〈See page〉 : If "See page" is in the triangular parenthesis 〈 〉, refer to the Service Manual SUPPLEMENT-1.

## AUDIO BLOCK DIAGRAM



IC512 EVR (A BUS)
IC513 EVR (B BUS)
IC511
CONTROL
CONTROL
EA
EB
IC515
MIX AMP
AS-46P BOARD
(See page 4-72)
<See page 14>
CN002 (1/2)
CN002 (2/2)
CN901 (1/2)
CN901 (2/2)
RV901
MASTER
IC514 EVR (A BUS)
IC520 (2/2)
IC620 (2/2)
AMP
IC516
IC616
PGM
REC
H
L
IC516 PGM/REC SELECT
IC616 PGM/REC SELECT
M20
IC520 (1/2)
IC620 (1/2)
PGM OUT L
PGM OUT R
RE-25 BOARD (2/2)
(See page 4-7)
CN301
IC301
S301
PGM 1
ON
OFF
S302
PGM 2
IC401
Q301 Q302
Q303 Q304
Q401 Q402
Q403 Q404
J302 (2/2)
J303
L
R
PGM 1
PGM 2
MONITOR OUT L
MONITOR OUT R
MUTE
MONITOR
IC004
IC005
IC051 (2/2)
BUFFER
AMP
RV006
MONITOR
Q051 Q052
Q061 Q062
IC061 (2/2)
Q031
POWER INITIAL MUTE
CN004
IC518 (MONITOR) OUTPUT SELECT
M10
M00
IC519
IC051 (1/2)
IC061 (1/2)
CN006
LV L
LV R
LEVEL METER
+8V
+2V REG.
IC006
AUX AUDIO L IN
AUX AUDIO R IN
RV902
AUX2/MIC
IC073 EVR (B BUS)
IC001
INV.
DC AMP
EA
EB
Q001
Q002
Q003
Q004
Q005
Q006
Q007
A00
A10
B00
B10
M00
M10
M20
AU SEL A0
AU SEL A1
AU SEL B0
AU SEL B1
MOUT SL 0
MOUT SL 1
MOUT SL 2
EV AUDIO A
EV AUDIO B
CN003
TO DV-19 BOARD (EFFECT SYSTEM CONTROL) CN702

Note
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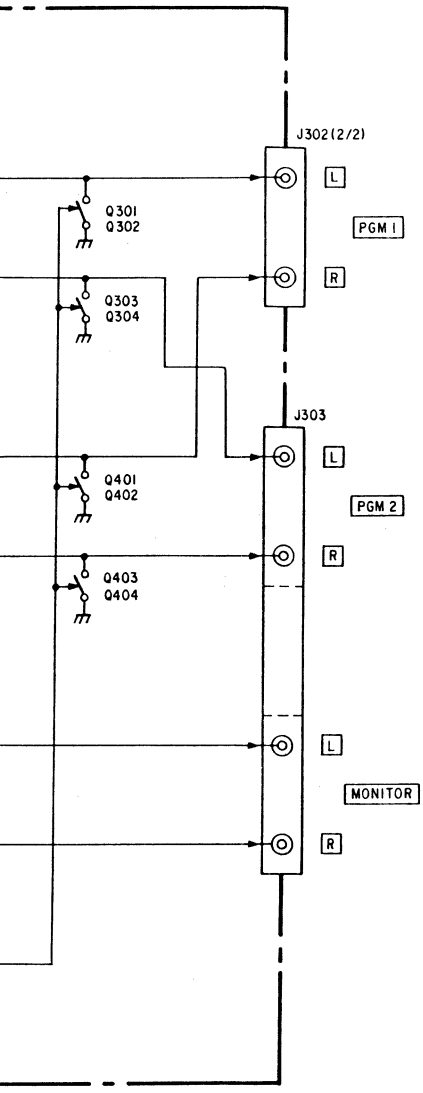
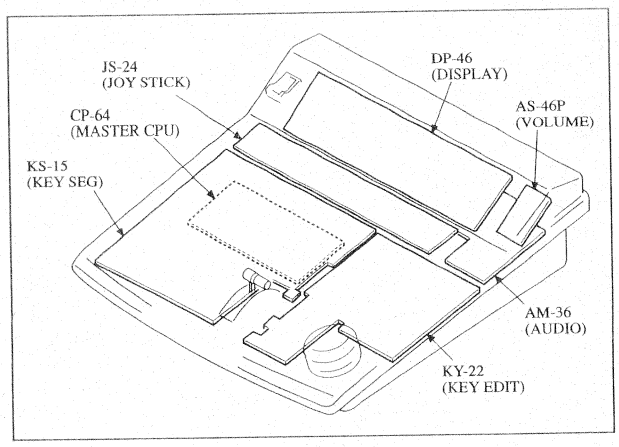



Note :
"See page" indicates the page of the block diagrams and schematic diagrams to be referred to.

(See page) : If "See page" is in the round parenthesis ( ), refer to the Service Manual.

〈See page〉 : If "See page" is in the triangular parenthesis 〈 〉, refer to the Service Manual SUPPLEMENT-1.

# XE-100P



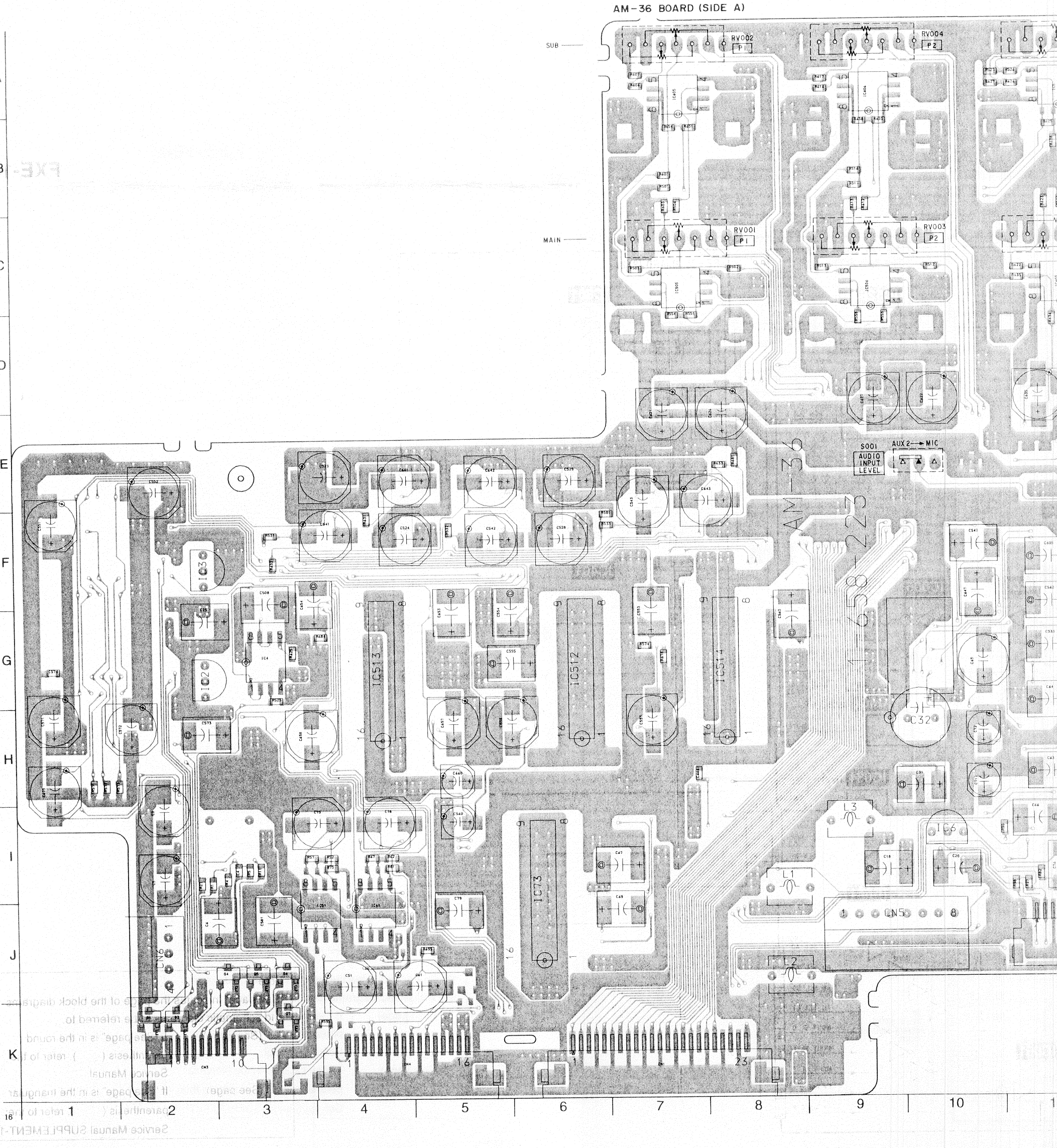

## AM-36 BOARD

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C001 | I–22 | C031 | H–10 | C078 | I–4 | C552 | E–2 | C582 | I–22 | C662 | F–11 | D502 | E–24 | IC073 | I–6 |
| C002 | I–22 | C032 | H–10 | C079 | J–5 | C553 | G–7 | C605 | F–11 | C663 | G–18 | D503 | F–24 | IC505 | C–7 |
| C003 | H–2 | C051 | J–4 | C090 | J–18 | C554 | G–5 | C606 | F–11 | C665 | H–18 | D504 | H–24 | IC506 | C–9 |
| C004 | I–3 | C061 | J–5 | C091 | J–18 | C555 | G–5 | C621 | E–7 | C666 | H–7 | D505 | H–24 | IC507 | E–20 |
| C005 | I–2 | C063 | H–11 | C507 | F–22 | C557 | H–7 | C622 | E–10 | C673 | H–1 | D601 | G–24 | IC509 | E–19 |
| C006 | J–3 | C064 | G–11 | C508 | G–3 | C558 | H–6 | C626 | E–7 | C674 | G–22 | D602 | G–24 | IC510 | E–23 |
| C011 | I–17 | C065 | G–10 | C523 | E–4 | C559 | G–21 | C627 | E–9 | | | D603 | G–24 | IC511 | F–23 |
| C013 | I–18 | C066 | I–11 | C524 | F–5 | C560 | I–5 | C635 | E–11 | CN001 | K–7 | | | IC512 | G–6 |
| C014 | G–22 | C067 | I–6 | C528 | F–6 | C562 | F–11 | C641 | E–4 | CN002 | J–11 | IC001 | I–22 | IC513 | G–4 |
| C015 | G–22 | C068 | J–20 | C529 | E–6 | C563 | G–8 | C642 | E–5 | CN003 | K–2 | IC002 | G–2 | IC514 | G–8 |
| C016 | F–22 | C069 | J–6 | C533 | G–10 | C564 | H–16 | C643 | F–7 | CN004 | K–4 | IC003 | F–2 | IC515 | G–15 |
| C017 | I–16 | C070 | J–20 | C534 | G–11 | C565 | H–17 | C647 | G–10 | CN005 | J–9 | IC004 | G–3 | IC516 | E–18 |
| C018 | I–9 | C071 | H–10 | C535 | D–11 | C566 | H–18 | C653 | G–5 | CN006 | J–2 | IC005 | A–11 | IC518 | G–23 |
| C019 | I–15 | C072 | H–10 | C541 | F–4 | C571 | H–1 | C654 | F–4 | CN007 | H–11 | IC006 | J–10 | IC519 | G–14 |
| C020 | I–10 | C074 | I–14 | C542 | F–5 | C572 | H–2 | C656 | F–21 | | | IC051 | I–3 | IC520 | F–15 |
| C021 | J–17 | C075 | I–4 | C543 | F–7 | C573 | H–3 | C657 | H–5 | D031 | H–16 | IC061 | I–4 | IC603 | C–11 |
| C023 | J–17 | C076 | I–11 | C547 | F–10 | C574 | G–1 | C658 | H–3 | D032 | H–16 | IC071 | I–14 | IC605 | A–7 |
| C025 | G–3 | C077 | J–14 | C551 | F–1 | C581 | J–3 | C660 | H–5 | D501 | F–24 | IC072 | J–14 | IC606 | A–9 |

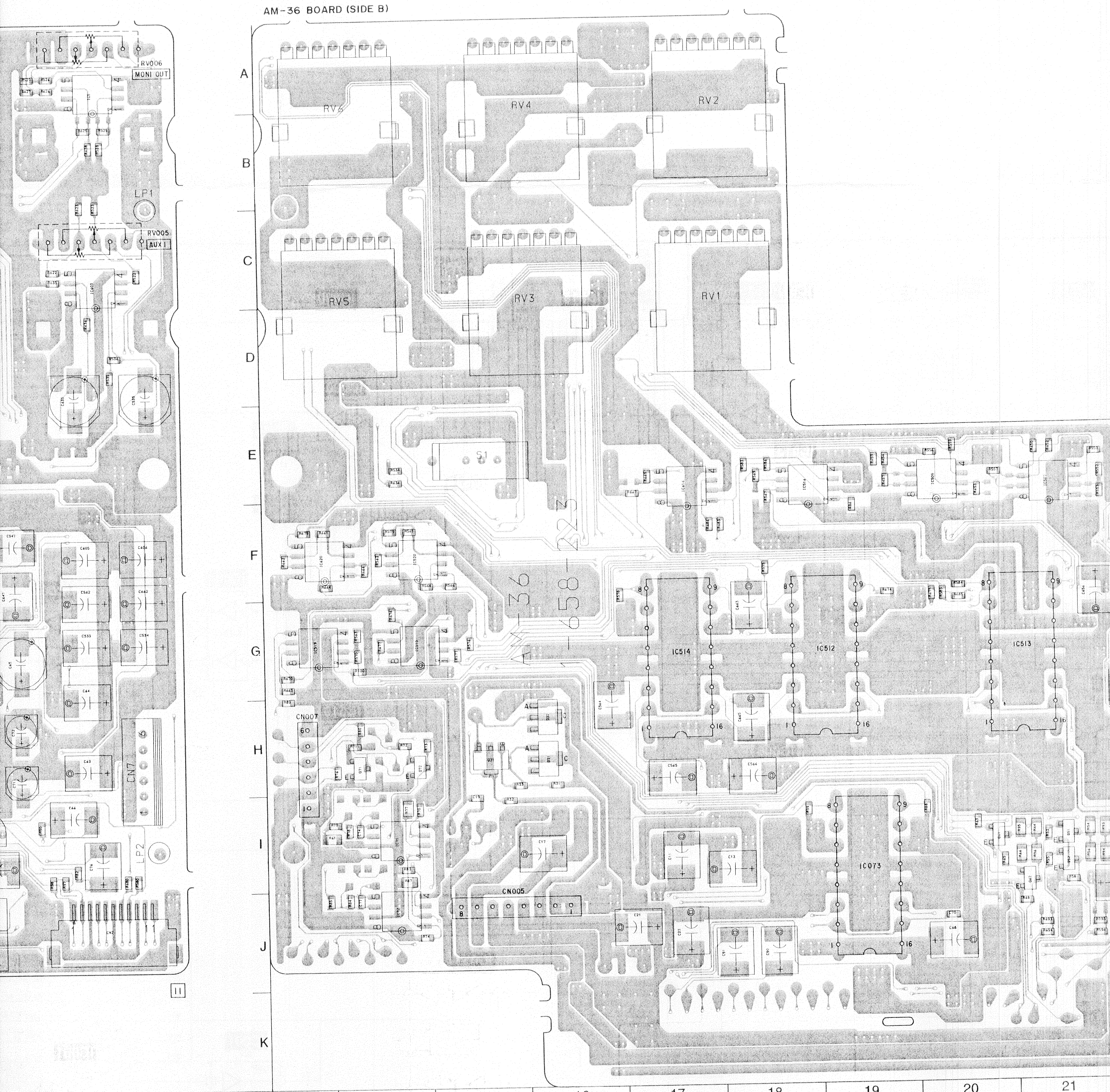
## AM-36 (AUDIO) / AS-46P (VOLUME) PRINTED WIRING BOARDS

— Ref. No. : AM-36 Board; 1,000 / AS-46P Board; 1,000 Series —

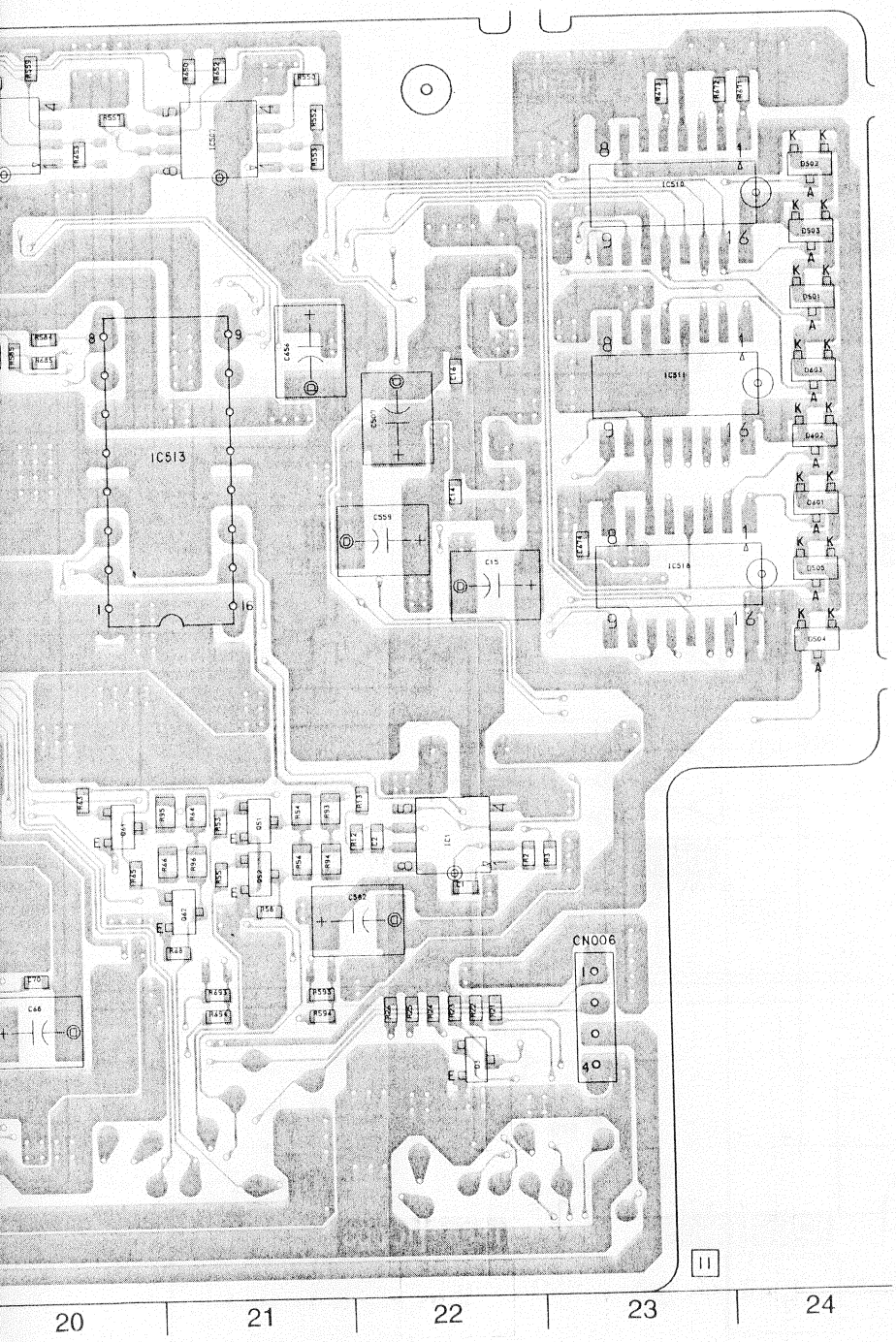
AM-36 BOARD (SIDE A)



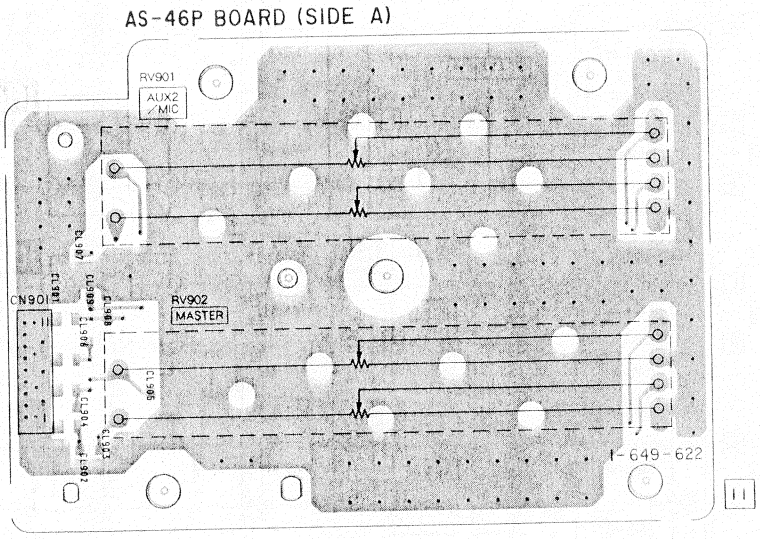
| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IC073 | I–6 | IC616 | E–17 | Q072 | H–15 | R032 | I–15 | R071 | H–14 | R089 | H–13 | R522 | C–11 | R555 | D–9 | R576 | G–15 | R613 | B–9 | R652 | E–21 | R673 |
| IC505 | C–7 | IC620 | F–14 | | | R033 | H–16 | R072 | H–14 | R090 | I–10 | R523 | B–11 | R556 | E–20 | R577 | G–15 | R616 | A–8 | R653 | E–20 | R674 |
| IC506 | C–9 | L001 | I–8 | R001 | I–3 | R052 | I–4 | R073 | H–15 | R093 | I–21 | R525 | G–3 | R557 | E–21 | R578 | F–17 | R617 | A–8 | R654 | B–7 | R675 |
| IC507 | E–20 | L002 | J–8 | R002 | I–22 | R053 | I–21 | R074 | J–15 | R094 | I–21 | R526 | A–10 | R558 | D–9 | R579 | F–14 | R622 | C–10 | R655 | B–9 | R676 |
| IC509 | E–19 | L003 | H–9 | R003 | I–22 | R054 | I–21 | R075 | I–4 | R095 | I–20 | R527 | A–10 | R559 | E–20 | R580 | I–11 | R623 | B–11 | R656 | E–19 | R677 |
| IC510 | E–23 | Q001 | K–2 | R004 | I–3 | R055 | I–21 | R076 | H–14 | R096 | I–21 | R528 | B–11 | R561 | F–15 | R581 | F–6 | R625 | G–3 | R657 | E–19 | R678 |
| IC511 | F–23 | Q002 | K–2 | R005 | I–3 | R056 | I–21 | R077 | I–14 | R097 | I–11 | R529 | B–11 | R562 | F–14 | R583 | E–18 | R626 | A–10 | R658 | B–9 | R679 |
| IC512 | G–6 | Q003 | J–22 | R011 | I–3 | R057 | I–3 | R078 | I–14 | R098 | I–11 | R531 | F–3 | R563 | G–14 | R584 | F–20 | R627 | A–10 | R659 | E–19 | R680 |
| IC513 | G–4 | Q004 | J–3 | R012 | I–21 | R058 | I–21 | R079 | I–13 | R099 | I–18 | R532 | F–4 | R564 | F–15 | R585 | F–20 | R628 | B–11 | R661 | F–14 | R681 |
| IC514 | G–8 | Q005 | J–3 | R013 | H–21 | R061 | I–14 | R080 | H–14 | R100 | G–14 | R533 | F–6 | R566 | F–15 | R586 | E–18 | R629 | B–11 | R662 | F–14 | R683 |
| IC515 | G–15 | Q006 | J–3 | R021 | J–22 | R062 | I–4 | R081 | I–4 | R502 | C–8 | R534 | E–15 | R567 | E–18 | R593 | J–21 | R631 | F–4 | R663 | G–13 | R684 |
| IC516 | E–18 | Q007 | K–3 | R022 | J–22 | R063 | I–20 | R082 | I–11 | R503 | C–7 | R535 | D–11 | R569 | E–18 | R594 | J–21 | R632 | F–3 | R664 | F–14 | R685 |
| IC518 | G–23 | Q031 | H–15 | R023 | J–22 | R064 | I–21 | R083 | I–14 | R506 | C–7 | R536 | D–11 | R570 | G–14 | R595 | K–4 | R633 | E–7 | R666 | F–14 | R686 |
| IC519 | G–14 | Q051 | I–21 | R024 | J–22 | R065 | I–20 | R084 | J–14 | R507 | B–7 | R550 | E–21 | R571 | H–1 | R602 | B–7 | R634 | E–15 | R667 | E–17 | R693 |
| IC520 | F–15 | Q052 | I–21 | R025 | J–22 | R066 | I–20 | R085 | J–14 | R512 | C–9 | R551 | D–7 | R572 | H–1 | R603 | C–7 | R635 | C–10 | R669 | E–17 | R694 |
| IC603 | C–11 | Q06 | I–20 | R026 | J–22 | R067 | I–4 | R086 | E–19 | R513 | C–8 | R552 | E–21 | R573 | H–2 | R606 | A–7 | R636 | D–11 | R670 | G–13 | R695 |
| IC605 | A–7 | Q062 | I–21 | R027 | I–2 | R068 | I–20 | R087 | I–14 | R516 | B–9 | R553 | E–21 | R574 | G–6 | R607 | A–7 | R650 | E–21 | R671 | E–23 | |
| IC606 | A–9 | Q071 | H–14 | R031 | H–16 | R070 | I–14 | R088 | I–20 | R517 | B–9 | R554 | D–7 | R575 | F–18 | R612 | B–9 | R651 | B–8 | R672 | E–23 | RV001 |



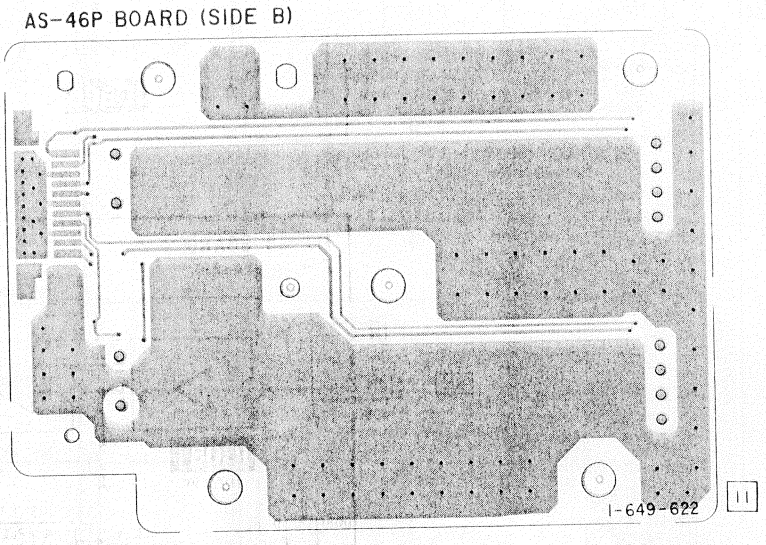
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| B-9 | R652 | E-21 | R673 | E-23 | RV002 | A-18 | |
| A-8 | R653 | E-20 | R674 | F-19 | RV003 | C-16 | |
| A-8 | R654 | B-7 | R675 | F-20 | RV004 | A-16 | |
| C-10 | R655 | B-9 | R676 | G-14 | RV005 | C-14 | |
| B-11 | R656 | E-19 | R677 | G-14 | RV006 | A-14 | |
| G-3 | R657 | E-19 | R678 | G-7 | | | |
| A-10 | R658 | B-9 | R679 | F-14 | S001 | E-15 | |
| A-10 | R659 | E-19 | R680 | I-11 | | | |
| B-11 | R661 | F-14 | R681 | E-8 | | | |
| B-11 | R662 | F-14 | R683 | F-18 | | | |
| F-4 | R663 | G-13 | R684 | G-4 | | | |
| F-3 | R664 | F-14 | R685 | F-20 | | | |
| E-7 | R666 | F-14 | R686 | F-18 | | | |
| E-15 | R667 | E-17 | R693 | J-21 | | | |
| C-10 | R669 | E-17 | R694 | J-21 | | | |
| D-11 | R670 | G-13 | R695 | J-5 | | | |
| E-21 | R671 | E-23 | | | | | |
| B-8 | R672 | E-23 | RV001 | C-18 | | | |




AS-46P BOARD (SIDE A)

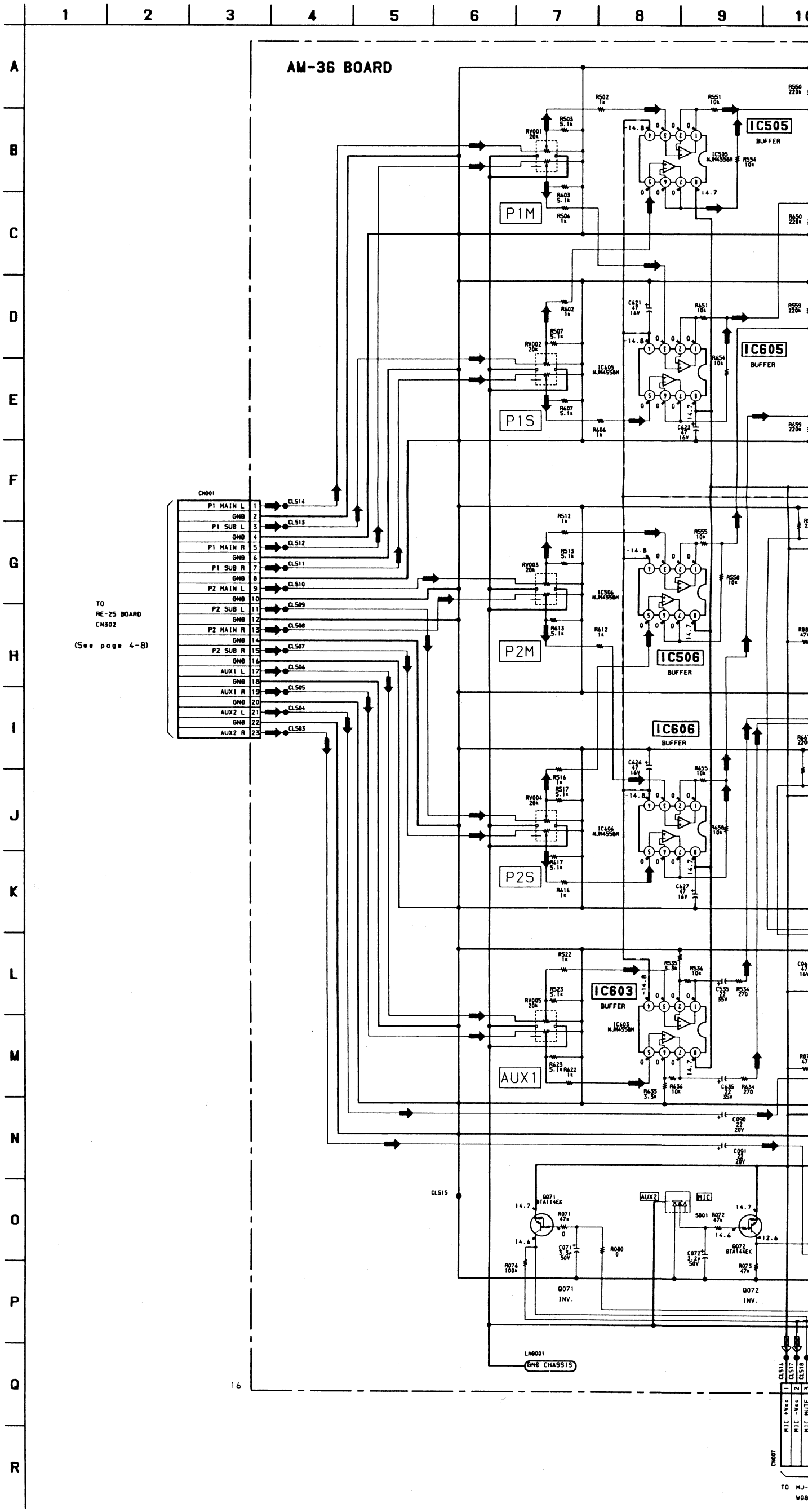



AS-46P BOARD (SIDE B)



## AM-36 (AUDIO) / AS-46P (VOLUME) SCHEMATIC DIAGRAM

— Ref. No. : AM-36 Board; 1,000 / AS-46P Board; 1,000 Series —




Note :
"See page" indicates the page of the block diagrams and schematic diagrams to be referred to.

(See page) : If "See page" is in the round parenthesis ( ), refer to the Service Manual.

〈See page〉 : If "See page" is in the triangular parenthesis 〈 〉, refer to the Service Manual SUPPLEMENT-1.

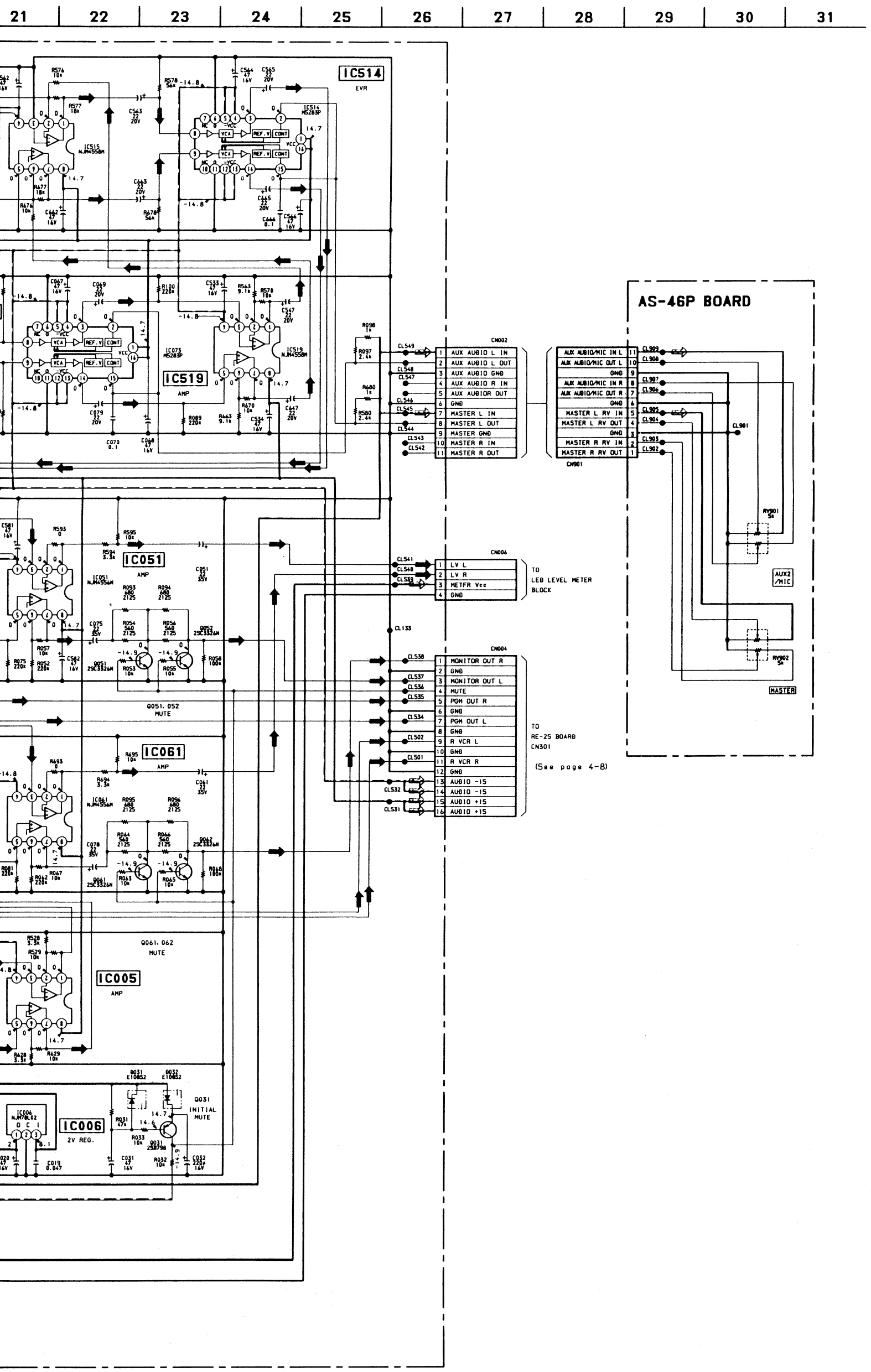
9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24

IC505 BUFFER
IC507 AMP
IC510 INPUT SELECT
IC512 EVR
IC515 MIX AMP
IC605 BUFFER
IC509 AMP
IC511 INPUT SELECT
IC513 EVR
IC073 EVR
IC519 AMP
IC516 REC/PGM SELECT
IC518 MONITOR OUTPUT SELECT
IC520 INV. AMP
IC051 AMP
IC616 REC/PGM SELECT
IC004 BUFFER
IC620 INV. AMP
IC061 AMP
IC071 AUX/MIC SELECT
IC001 INV.
IC072 AUX/MIC SELECT
Q001-004 INV.
Q005-007 INV.
Q072 INV.
IC002 +8V REG.
IC003 -8V REG.
IC006 2V REG.
Q051. 052 MUTE
Q061. 062 MUTE
Q031 INITIAL MUTE
IC005 AMP
MONI OUT

CN007: MIC +Vcc, MIC -Vcc, MIC MUTE, MIC CONT, MIC SIG, GND
TO MJ-65 BOARD W081 (See page 4-69)

CN003: AU SEL A0, AU SEL A1, AU SEL B0, AU SEL B1, MOUT SL 0, MOUT SL 1, MOUT SL 2, DIGI GND 1, EV AUDIO A, EV AUDIO B
TO 8V-19 BOARD CN702 (See page 4-111)

CN005: AUDIO +15V, AUDIO +15V, AUDIO -15V, AUDIO -15V, GND, GND, DIGI 5V, GND (DIGI)
TO FU-123 BOARD CN603 (See page 4-114)




·SIGNAL PATH

| | VIDEO SIGNAL | | | AUDIO SIGNAL |
|---|---|---|---|---|
| | CHROMA | Y | Y/CHROMA | |
| | | | | ➡ |